Calbiochem®

New Research Tools for Signal Transduction and Life Science Research

2007

INSIDE:

EMD

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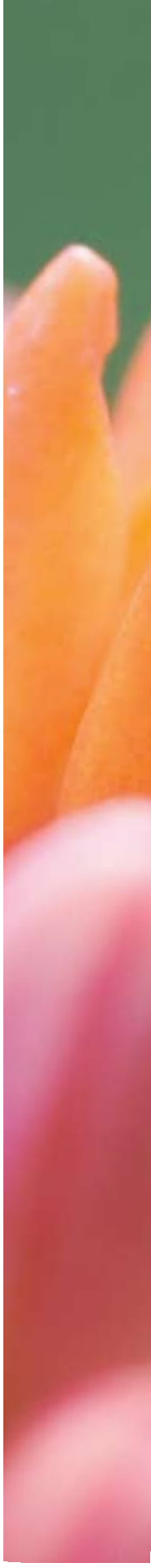

Technical Support
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Angiogenesis Research Products

Product	Application	Cat. No.	Size	Price
Angiostatin K1-3, Human, Recombinant, *Pichia pastoris*	A specific inhibitor of endothelial cell growth and angiogenesis.	176707	250 µg	$268
Angiostatin Protein, Human, Recombinant, *Pichia pastoris*	A specific inhibitor of endothelial cell proliferation and one of the most potent and specific natural inhibitors of angiogenesis and metastatic tumor growth.	327768	500 µg	$508
Endostatin Protein, Human, Recombinant, *Pichia pastoris*	A potent inhibitor of angiogenesis and tumor growth *in vitro* and *in vivo.*	324768	250 µg 1 mg	$235 $613
Endostatin Protein, Mouse, Recombinant, *Pichia pastoris*	A potent inhibitor of angiogenesis and tumor growth *in vitro* and *in vivo.*	324769	250 µg 1 mg	$222 $591
InnoCyte™ α_2, α_3, α_5 Integrin Detection Kit	Designed for the determination of relative levels of α_2, α_3, and α_5 integrins on the surface of human cells (integrin profiling). *Detection method: Fluorometric*	CBA037	1 kit	$307
Integrin $\alpha_M\beta_2$ Ligand	A cell-permeable thioxothiazolidine compound that displays anti-inflammatory properties. Shown to increase cell adhesion and lowers leukemia cell migration *in vitro* and leukocyte recruitment *in vivo* and displays anti-inflammatory properties. Binds to and stabilizes integrin α_M I domain active conformation and enhances the ligands' (pro-MMP-9 and fibrinogen) binding ability.	407271	5 mg	$88
InnoCyte™ Laminin-based 96-Well Cell Invasion Assay	A 96-well kit designed to screen potential anti-metastatic agents *in vitro* in a convenient, high-throughput manner.	CBA043	1 kit	$400
Tie2, GST-Fusion, Human, Recombinant, *S. frugiperda*	Recombinant, human tunica interna endothelial cell kinase 2 (Tie2) fused to a GST-His_6-thrombin cleavage site sequence at the N-terminus and expressed in *S. frugiperda* insect cells using a baculovirus expression system. *Specific activity:≥95 units/µg protein.*	325894	10 µg	$285
Tie2, His•Tag®, Human, Recombinant, *S. frugiperda*	Recombinant, human Tunica Internal Endothelial Cell 2 (Tie2) fused a His•Tag® sequence at the N-terminus and expressed in *S. frugiperda* insect cells using a baculovirus expression system. *Specific activity:≥140 units/µg protein. Purity: >80% by SDS-PAGE.*	124024	10 µg	$296
uPA Inhibitor	A cell-permeable and potent substrate-competitive inhibitor of uPA, trypsin, and tryptase (K_i = 0.32, 0.44, and 1.5 µM, respectively), with good selectivity relative to tPA, thrombin, and factor Xa (K_i = 16.8, 20, and 30 µM, respectively).	672151	5 mg	$172
VEGF-R1, GST-Fusion, Human, Recombinant, *S. frugiperda*	Recombinant, human vascular endothelial growth factor receptor 1 (VEGF-R1) fused at the N-terminus to a GST-His_6-thrombin cleavage site sequence and expressed in *S. frugiperda* insect cells using a baculovirus expression system. *Specific activity:≥45 pmol/min/µg protein.*	325895	10 µg	$285
WEE1, GST-Fusion, Human, Recombinant, *S. frugiperda*	Recombinant, human WEE1 fused at the N-terminus to a GST-His_6thrombin cleavage site sequence and expressed in *S. frugiperda* insect cells using a baculovirus expression system. *Specific activity:≥1 pmol/min/µg protein.*	325896	10 µg	$285
Withaferin A, *Withania somnifera*	A cell-permeable steroidal lactone that inhibits angiogenesis (IC_{50} = 12 nM for HUVEC proliferation and 7 µg/kg/day in C57BL/6J mice, i.p.) and blocks NF-κB activation (IC_{50} = 500 nM in TNF-α-induced endothelial cells) by targeting the ubiquitin-mediated proteasome pathway.	681535	1 mg 5 mg	$85 $274

ELISA: enzyme-linked immunosorbent assay; **CIA:** cell inhibition assay; **FC:** flow cytometry; **FS**: frozen sections; **IF:** immunofluorescence; **IB**: immunoblotting; **IC**: immunocytochemistry; **IH**: immunohistochemistry; **IP**: immunoprecipitation; **PS**: paraffin sections

← APAF-1

Anti-APAF-1 Mouse mAb (94408)
Cat No. AP1038

Detection of APAF-1 by immunoblotting. Sample: Whole cell lysate [2 x 10^5 cells (~25 µg)] from human Jurkat cells. Primary antibody for immnuoblotting: Anti-AP-1 (1µg/ml). (Cat. No. AP1038) Detection: chemiluminescence.

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Product	Application	Cat. No.	Size	Price
Antibiotics				
Ampicillin, Sodium Salt, Sterile-Filtered Aqueous Solution, Cell Culture Tested	Active against Gram-negative bacteria. Suitable for use in research that uses ampicillin-resistant plasmids.	171257	10 ml	$49
Blasticidin S, *Streptomyces sp.*, Sterile-Filtered Aqueous Solution, Cell Culture Tested	Suitable for selection of cells carrying plasmids conferring blasticidin resistance. Blasticidin resistance is conferred by the blasticidin S deaminase gene (*bsr*) that converts blasticidin S to a nontoxic deaminohydroxy derivative.	203351	10 ml	$349
Gentamycin Sulfate, Sterile-Filtered Aqueous Solution, Cell Culture Tested	Broad-spectrum cell culture antibiotic that is non-toxic to viruses and mammalian cells at concentration that affect bacteria and mycoplasma.	345815	20 ml	$78
IPTG, Animal-Free, High Purity	Used in the stimulation of β-galactosidase in cellular systems in which dioxane would disrupt normal cell function. Contains no animal-derived products.	420291	1 g 5 g	$47 $130
Kanamycin Sulfate, Sterile-Filtered Aqueous Solution, Cell Culture Tested	Inhibitor of protein biosynthesis that acts on the 30S ribosome, causing misreading of the genetic code. May cause renal damage and ototoxicity.	402412	20 ml	$78
Polymyxin B Sulfate, Sterile-Filtered Aqueous Solution, Cell Culture Tested	Binds to cell wall and makes it more permeable, causing fluid uptake. Effective against Gram-negative bacteria.	420413	20 ml	$110
Calcium Signaling				
Calmodulin, His•Tag® fusion	Full-length, human recombinant calmodulin expressed with an N-terminal His•Tag® sequence containing: four functional Ca^{2+}-binding sites (aa 20-31; aa 56-67; aa 93-104; aa 129-140) with EF-hands (aa 7-42; aa 43-78; aa 80-115; aa 116-148); and a ubiquitination site at Lys^{21}.	208670	50 µg	$78
InSolution™ Ionomycin, Free Acid, *Streptomyces conglobatus*	A 5 mM (1 mg/282 µl) solution of Ionomycin, Free Acid, *Streptomyces conglobatus* (Cat. No. 407950).	407951	1 mg	$94
IP 3-K Inhibitor	A cell-permeable, selective, and ATP-competitive inhibitor of IP 3-K (IC_{50} = 10.2 µM).	406170	5 mg	$123
NAADP Receptor Modulator	A cell-permeable selective antagonist of NAADP-induced Ca^{2+} release. At higher concentrations exhibits weak agonistic property towards NAADPR (nicotinic acid adenine dinucleotide phosphate receptor).	481919	25 mg	$130
Nemadipine-A	A cell-permeable compound that antagonizes the α1-subunit of L-type calcium channel.	480022	25 mg	$140

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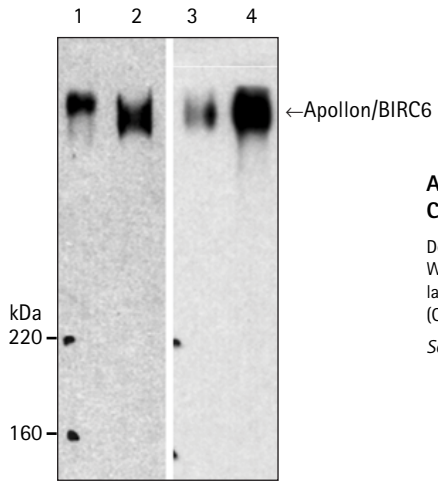

Anti-Apollon (4775-4829) Rabbit pAb
Cat. No. AP1031

Detection of human Apollon by immunoprecipitation and immunoblotting. Samples: Whole cell lysate (20 µg, lane 1, 50 µg, lane 2) from HeLa cells or S100 extract (20 µg, lane 3, 50 µg, lane 4) from HeLa cells. Antibody for IP: Anti-Apollon Rabbit pAb (Cat. No. AP1031) (2 µg/mg lysate protein). Detection: chemiluminescence.

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Technical Support
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Cancer/Cell Cycle/Apoptosis Related Products

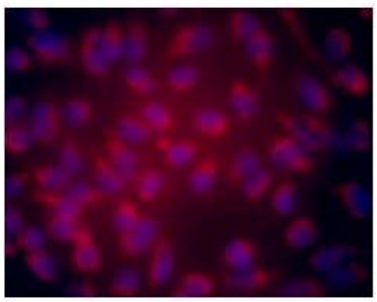
Kits

Product	Application	Cat. No.	Size	Price
Active Caspase-3 ELISA Kit	A 96-well kit designed to measure active caspase-3 in cell extracts. Sensitivity: 0.1 ng/ml	CBA045	1 kit	$539
Active Caspase-8 Assay Kit	A convenient immunofluorescent assay for the quantitative detection of active caspase-8 in cell lysates.	CBA046	1 kit	$359
Active Caspase-9 Assay Kit	A convenient immunofluorescent assay for the quantitative detection of active caspase-9 in cell lysates.	CBA047	1 kit	$373
Annexin V-Biotin Apoptosis Detection Kit II	A convenient kit for the identification of changes in the plasma membrane that occur during apoptosis. In apoptotic cells, phosphatidylserine is translocated from the inner to the outer leaflet of the plasma membrane, allowing for the detection of phosphatidyserine on the cell surface.	CBA058	1 kit	$177
Annexin V-FITC Apoptosis Detection Kit II	A convenient kit for the identification of changes in the plasma membrane that occur during apoptosis.	CBA059	1 kit	$177
Annexin V-PE Apoptosis Detection Kit	A convenient kit useful for the identification of phosphatidylserine that is translocated from the cytoplasmic face of the plasma membrane to the cell surface during apoptosis. This assay can be performed on live cells.	CBA060	25 T 100 T	$172 $291
Apo-BrdU™ Kit	A two color TUNEL (Terminal deoxynucleotide transferase dUTP Nick End Labeling) assay for labeling DNA breaks and total cellular DNA to detect apoptotic cells by flow cytometry and microscopy.	CBA040	1 kit	$452
Apo-Direct™ Kit	A two color TUNEL (Terminal deoxynucleotide transferase dUTP Nick End Labeling) assay for labeling DNA breaks and total cellular DNA to detect apoptotic cells by flow cytometry or laser scanning cytometry.	CBA041	1 kit	$452
InnoCyte™ Flow Cytometric Cytochrome *c* Release Kit	A convenient and sensitive assay for determination of the relocalization of cytochrome *c* from the mitochondria to the cytoplasm using flow cytometry or fluorescent microscopy.	CBA077	1 kit	$249
Survivin **ELISA** Kit	Detects and quantifies native and recombinant human survivin in cell lysates.	CBA048	1 kit	$373
XIAP **ELISA** Kit	Detects and quantifies native and recombinant human XIAP (X Chromosome-Linked Inhibitor of Apoptosis) in cell lysates.	CBA049	1 kit	$373

Antibodies

Anti-APAF-1 Mouse mAb (94408)	Recognizes the ~130 kDa apoptosis protease activating factor 1 protein (APAF-1) in Jurkat cells. **IB**	AP1038	100 µg	$245
Anti-APAF-1 Rabbit pAb	Recognizes the ~130 kDa APAF-1 protein in HeLa cells. **IB**	AP1052	50 µl	$145

ELISA: enzyme-linked immunosorbent assay; **CIA:** cell inhibition assay; **FC:** flow cytometry; **FS**: frozen sections; **IF:** immunofluorescence; **IB**: immunoblotting; **IC**: immunocytochemistry; **IH**: immunohistochemistry; **IP**: immunoprecipitation; **PS**: paraffin sections



Anti-Cytochrome c Mouse mAb (6H2.B4)
Cat. No. AP1030

Detection of human cytochrome *c* by immunocytochemistry. Sample: HeLa cells fixed with 100% methanol. Primary antibody: Anti-Cytochrome c Mouse mAb (6H2.B4) (Cat. No. AP1030) (3 µg/ml). Detection: fluorescence with DAPI counterstain.

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Product	Application	Cat. No.	Size	Price
Anti-Apollon (4775-4829) Rabbit pAb	Recognizes the ~500 kDa Apollon protein in HeLa cells. **IB, IP**	AP1031	50 µg	$139
Anti-ASC Rabbit pAb	Recognizes the ~21 kDa ASC (apoptosis-associated speck-like protein containing a CARD) protein in HT-29 cells. **IB, IP**	ST1121	50 µl	$145
Anti-BMI1 (1-326) Rabbit pAb	Recognizes the ~44 kDa BMI protein in U2OS cells. **IB**	AP1050	50 µl	$145
Anti-BNF1 (150-250) Rabbit pAb	Recognizes the ~50 kDa BNF1 protein in DU145 cells. **IB**	CA1021	50 µg	$139
Anti-CAS Rabbit pAb	Recognizes the ~100 kDa cellular apoptosis susceptibility (CAS) protein in HeLa cells. **IB, IP**	AP1045	50 µg	$145
Anti-Caspase-1 (31-45) Rabbit pAb	Recognizes the ~45 kDa latent form of caspase-1 in HeLa cells. Also recognizes cleaved forms of caspase-1 that retain amino acids 31-45 of the caspase-1. **IB, PS**	AP1044	50 µg	$177
Anti-Caspase-1 Mouse mAb (14F468)	Recognizes the ~45 kDa latent form of caspase-1 in HeLa and NIH3T3 cells. Also recognizes cleaved forms of caspase-1 that retain amino acids 371-390. **IB, PS**	AP1043	50 µg	$199
Anti-α-Catenin Mouse mAb (1G5)	Recognizes the ~102 kDa α-catenin protein in HeLa cells. **IB, IP**	CA1030	50 µl	$145
Anti-CD40 (258-277) Rabbit pAb	Recognizes the ~45 kDa CD40 protein. **IB**	ST1096	100 µl	$294
Anti-CtIP Rabbit pAb	Recognizes the ~125 kDa CtIP protein in MCF7 cells. **IB, IP**	AP1046	50 µg	$140
Anti-GRIM-19 Mouse mAb (6E1BH7)	Recognizes the ~19 kDa GRIM-19 (Genes associated with Retinoid-IFN-induced Mortality) subunit of mitochondrial complex I (NADH-ubiquinone oxidoreductase) in heart mitochondrial preparations and MRC5 cells. **IB, IC**	AP1033	50 µg	$236
Anti-IKIP1 Goat pAb	Recognizes the ~45 kDa IKIP1 protein in U20S cells. **IB, IP**	AP1047	50 µg	$140
Anti-c-Myb/v-Myb Mouse mAb (4E3)	Recognizes the ~ 80 kDa c-Myb/v-Myb protein in Jurkat and LS174T cells. **IB, PS**	CA1028	200 µl	$200
Anti-NOD2/CARD15 Rabbit pAb	Recognizes the ~150 kDa NOD2 (Nucleotide-binding oligomerization domain containing 2) protein in Jurkat cells. **IB, IP**	ST1119	50 µg	$145
Anti-ORC1 Rabbit pAb	Recognizes the ~100 kDa (doublet) ORC1 protein in HeLa cells. **IB, IP**	DR1039	50 µg	$140
Anti-p19^{ARF} (54-75) Rat mAb (12-A1-1)	Recognizes the ~19 kDa p19ARF protein in whole cell lysates of mouse embryonic fibroblasts (MEF). **IB, IF, IP**	CB1013	50 µg	$139
Anti-p19^{ARF} (54-75) Rat mAb (5-C3-1)	Recognizes the ~19 kDa p19ARF protein in whole cell lysates of mouse embryonic fibroblasts (MEF). **IB, IF, IP, PS**	CB1012	50 µg	$139

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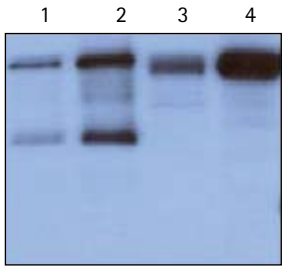

Anti-Rap1Gap Rabbit pAb
Cat. No. ST1112

Detection of Rap1Gap by immunoblotting. Samples: Purified recombinant Rap1Gap (2 ng, lane 1; 5 ng, lane 2), whole cell lysate (25 µg) from Ins 1 (832/13) cells expressing Rap1Gap (lane 3), and bovine brain high speed supernatant (25 µg) (lane 4). Primary antibody: Anti-Rap1Gap Rabbit pAb (Cat. No. ST1112) (1:1000). Detection: chemiluminescence.

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Product	Application	Cat. No.	Size	Price
Anti-Rap1Gap Rabbit pAb	Recognizes the ~80 kDa Rap1Gap protein in bovine brain (high speed supernatant) and INS-1 (832/13) cells expressing recombinant Rap1Gap protein. **IB, IP**	ST1112	100 µl	$284
Anti-TIP60 Rabbit pAb	Recognizes the ~60 kDa TIP60 protein in Saos-2 cells. **IB, IP**	DR1041	50 µl	$145
Anti-TRAF2 (1-501) Rabbit pAb	Recognizes the ~56-58 kDa TRAF2 protein in NIH3T3, ZR75-1, WR19L12a, and Raji cells. **IB**	AP1040	50 µg	$177
Anti-TSC1 (Tuberous Sclerosis 1) Rabbit pAb	Recognizes the ~120 kDa tuberous sclerosis 1 protein (TSC1) protein in HeLa, MEF, and U2OS cells. **IB, IP**	AP1032	50 µg	$145
Anti-Wilm's Tumor Protein Rabbit pAb	Recognizes the ~47-55 kDa Wilm's tumor protein in Wilm's tumor tissue. **IB, IP, PS**	CA1026	50 µl	$213
Activators/Inhibitors/Inducers				
Apoptosis Activator IV, Apoptolidin	A cell-permeable macrolide antibiotic that induces apoptosis in E1A-transformed cells (IC_{50} = 11 ng/ml) with high selectivity. Although the apoptotic activity of apoptolidin correlates with its F_0F_1-ATPase inhibition (IC_{50} = 700 nM in yeast), the basis of the cancer selectivity is still not fully understood. Apoptolidin quickly isomerizes to and co-exists with Isoapoptolidin (Cat. No. 371959) in equilibrium (k_1 = 0.0656 h^{-1} and K_{eq} = 0.616 in Dulbecco's PBS at 37˚C).	178495	100 µg	$190
Apoptosis Activator V, Isoapoptolidin	A cell-permeable isomer of Apoptolidin (Cat. No. 178495) with over 20-fold less inhibitory activity against F_0F_1-ATPase (IC_{50} = 17 µM in yeast). Isoapoptolidin quickly isomerizes to and co-exists with Apoptolidin in equilibrium (k_1 = 0.0626 h^{-1} and K_{eq} = 0.638 in Dulbecco's PBS at 37˚C).	371959	100 µg	$190
Bcl-2 Inhibitor II, YC137	A cell-permeable inducer of apoptosis in Bcl-2-overexpressing cells (<300 nM in MDA-MB435B breast cancer cells) with little effect on a variety of primary cells. Preferentially binds Bcl-2 (K_i = 1.3 µM) and disrupts its interaction with Bid BH3, thereby blocking the anti-apoptotic activity of Bcl-2.	197331	5 mg	$145
Bcl-2 Inhibitor III, EM20-25	A cell-permeable compound that sensitizes apoptosis-resistant, Bcl-2-overexpressing leukemic cells to cytotoxic drugs. Shown to bind to Bcl-2, disrupt its interaction with Bax, and activate caspase-9. Also induces PTP (permeability transition pore) opening in both isolated mitochondria and intact cells, without any effect on respiration.	197332	10 mg	$88
InSolution™ Caspase Inhibitor I	A 10 mM (1 mg/214 µl) solution of Z-VAD-FMK (Cat. No. 627610) in DMSO.	627609	1 mg	$191
InSolution™ Caspase Inhibitor VI	A 10 mM (1 mg/221 µl) solution of Caspase Inhibitor VI (Cat. No. 219007) in DMSO.	219011	1 mg	$189
Caspase Inhibitor X	A selective, reversible, and competitive inhibitor of caspases (K_i = 4.3 µM, 6.2 µM and 2.7 µM for caspase-3, -7 and -8, respectively).	218723	5 mg	$123

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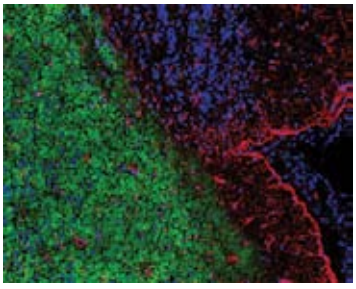

Anti-Microtubule Associated Protein 2 Mouse mAb (SMI-52)
Cat. No. ST1110

Detection of rat microtubule associated protein 2 by staining frozen sections. Sample: Rat brain. Primary antibody: Anti-Microtubule Associated Protein 2 Mouse mAb (SMI-52) (Cat. No. ST1110) (1:1000). Detection: fluorescence (green) with Hoechst 33342 counterstain.

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Product	Application	Cat. No.	Size	Price
Caspase-3 Inhibitor VII	A cell-permeable, potent, reversible, and non-competitive inhibitor of caspase-3 (IC_{50} = 23 nM) with 10-100-fold greater selectivity.	219012	1 mg	$140
Fumitremorgin C, *Aspergillus fumigatus*	A cell-permeable mycotoxin that inhibits BCRP/ABCG2 (breast cancer resistance protein/ATP-binding cassette G2) multidrug transport activity. Also acts as a potent and specific chemosenzitizing agent.	344847	250 µg	$156
m-Iodobenzylguanidine, Hemisulfate	A cell-permeable norepinephrine analog that displays antiproliferative and proapoptotic properties. Competitively inhibits arginine-dependent mono-ADP-ribosylation, impairs mitochondrial respiration, stimulate glycolysis, and prevent terminal differentiation of skeletal myoblasts reversibly.	407721	10 mg	$99
MDM2 Antagonist, Nutlin-3, Racemic	A cell-permeable, potent and selective MDM2 antagonist (IC_{50} = 90 nM for Nutlin-3a and 13.6 µM for Nutlin-3b) that displays antitumor properties. Activates p53 pathway by binding MDM2 in the p53-binding pocket and inhibits MDM2-p53 interaction.	444143	1 mg	$85
MDM2 Antagonist III	A cell-permeable compound that binds to MDM2 and disrupts MDM2-p53 interaction (IC_{50} = 15.9 µM). Shown to upregulate p53-dependent luciferase activity and cellular levels of MDM2 and p21 in SJSA cells.	444149	10 mg	$151
Necrosis Inhibitor, IM-54	A cell-permeable, selective blocker of oxidative stress-induced necrotic cell death (~3 µM IM-54 prevented ~50% cell death in HL60 cells exposed to 100 µM H_2O_2).	480060	5 mg	$145
Necrostatin-1	A cell-permeable, potent, and selective blocker of necroptosis (EC_{50} = 494 nM in FADD-deficient Jurkat cells treated with TNF-α), mediated by death-domain receptors (DRs) that offers neuroprotection in a murine model of ischemic brain injury.	480065	5 mg	$85
Necrostatin-1, Inactive Control	A cell-permeable N-demethylated thiohydantoin analog of Nec-1 (Cat. No. 480065) that is devoid of anti-necroptotic properties and serves as a suitable inactive control.	480066	5 mg	$85
p53 Activator III, RITA	A cell-permeable, p53-targeting, tricyclic thiophene. p53 blocks MDM2 interaction and p53 ubiquitination and induces p53-dependent apoptosis in tumor cells expressing wild-type p53.	506149	1 mg	$78
Pifithrin-α, *p*-Nitro	A cell-permeable p53 inhibitor that serves as the prodrug form of Pifithrin-α, *p*-Nitro, Cyclic (Cat. No. 506154).	506152	5 mg	$88
Pifithrin-α, *p*-Nitro, Cyclic	A cell-permeable p53 inhibitor that exhibits 10-fold higher potency (ED_{50} = 30 nM in protecting etoposide-induced cortical neuron death) and 50% longer half-life ($t_{1/2}$ = 6h in neuron culture medium at 37˚C) than Pifithrin-α (Cat. No. 506132).	506154	5 mg	$99
Pifithrin-µ	A cell-permeable compound that blocks p53 interaction with Bcl-xL and Bcl-2 proteins and selectively inhibits p53 translocation to mitochondria without affecting the transactivation function of p53. Effectively protects against γ radiation-induced cell death *in vitro*.	506155	10 mg	$90
PPARγ Antagonist III, G3335	A cell-permeable, selective, and reversible PPARγ antagonist (K_D ~ 8 µM).	516566	50 mg	$83
Procaspase-3 Activator, PAC-1	A cell-permeable compound that activates procaspase-3 (EC_{50} = 220 nM) by overcoming the safety-catch-mediated suppression of caspase autoactivation.	529661	10 mg	$130

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Anti-ANT Mouse mAb (5F51BB5AG7)
Cat. No. AP1034

Detection of human ANT by immunocytochemistry. Sample: Cultured fibroblasts. Primary antibody: Anti-ANT Mouse mAb (5F51BB5AG7) (Cat. No. AP1034) (5 µg/ml). Detection: fluorescence.

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Technical Support
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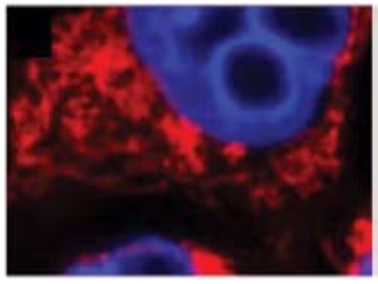
Product	Application	Cat. No.	Size	Price
Proteins/Enzymes				
cIAP-1, Human, Recombinant, *E. coli*	Recombinant, human cIAP-1 (amino acids 1-618) fused at the N-terminus to the peptide sequence MATVIDH$_{10}$SSNG) and expressed in *E. coli*. It is a member of the inhibitor of apoptosis family of proteins that inhibits proteolytic activity of mature caspases by interaction of the BIR domain with the active caspase. *Purity:≥85% by SDS-PAGE.*	539661	50 µg	$327
FAT10, His•Tag®, Human, Recombinant, *E. coli*	Human, recombinant FAT10 expressed in *E. coli* with an N-terminal His•Tag® sequence. FAT10 is a small ubiquitin-like protein whose expression is synergistically inducible with γ-interferon and TNF-α. FAT10 expression also causes apoptosis. *Purity:≥95% by SDS-PAGE.*	662077	100 µg	$156
MDM2, Human, Recombinant, *E. coli*	Recombinant, human MDM2 expressed in *E. coli* and purified by affinity chromatography using FPLC. *Purity:≥95% by SDS-PAGE.*	444146	10,000 U	$359
TRAIL, Human, Recombinant, *E. coli*	Soluble, recombinant, human TRAIL comprised of amino acids 114-281 and expressed in *E. coli*. Ligand for TRAIL receptors DR4 and DR5. Displays potent antitumor activity against selected targets and induces apoptosis in a number of transformed cell lines, but not in normal tissues.	616374	100 µg	$354

Cytoskeletal Research Products

InSolution™Blebbistatin, Racemic	A 50 mM (5 mg/342 µl) solution of (±)-Blebbistatin (Cat. No. 203390) in DMSO.	203389	5 mg	$152
Diminutol	A cell-permeable 2,6,9-trisubstituted purine analog that blocks mitotic spindle assembly by competitively inhibiting NQO1, an NADP-dependent oxidoreductase. Shown to interact with the NADP binding site and directly affect tubulin polymerization.	317290	5 mg	$155
Eg5 Inhibitor III, Dimethylenastron	A cell-permeable, potent, specific, and reversible inhibitor of the microtubule-stimulated ATPase activity of the mitotic motor, Eg5 (IC_{50} = 200 nM).	324622	1 mg 5 mg	$80 $241
InSolution™ Jasplakinolide, *Jaspis johnstoni*	A 1 mM (50 µg/71 µl) solution of Jasplakinolide, *Jaspis johnstoni* (Cat. No. 420107) in DMSO.	420127	50 µg	$146
Anti-Microtubule Associated Protein 2 Mouse mAb (SMI-52)	Recognizes the ~280 kDa microtubule associated protein 2a (MAP2a), MAP2b, and the ~68 kDa MAP2c protein in brain cytoskeletal preparations. **ELISA, FS, IB, IC, PS**	ST1110	100 µl	$276
MreB Perturbing Compound A22	A cell-permeable compound that specifically, rapidly and reversibly perturbs MreB function without affecting eukaryotic actin polymerization. Reported to affect the growth and morphology of *Caulobacter crescentus*, convert rod-shaped *E. coli* to round cells, and block DNA segregation without affecting DNA replication.	475951	25 mg	$92
Tubulin Polymerization Inhibitor II	A cell-permeable, SU5416- (Cat. No. 676487) derived combretastatin A-4 analog that acts as an effective anti-microtubule agent (IC_{50} = 4.5 µM in inhibiting polymerization of purified porcine brain tubulin) and displays extremely potent anti-proliferative activity towards various cancer cell lines.	654164	5 mg	$90

ELISA: enzyme-linked immunosorbent assay; **CIA:** cell inhibition assay; **FC:** flow cytometry; **FS**: frozen sections; **IF:** immunofluorescence; **IB**: immunoblotting; **IC**: immunocytochemistry; **IH**: immunohistochemistry; **IP**: immunoprecipitation; **PS**: paraffin sections



Anti-Cyclophilin D Mouse mAb (E11AE12BD4)
Cat. No. AP1035

Detection of human cyclophilin D by immunocytochemistry. Sample: Cultured fibroblasts. Primary antibody: Anti-Cyclophilin D Mouse mAb (E11AE12BD4) (Cat. No. AP1035) (5 µg/ml). Detection: fluorescence.

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Product	Application	Cat. No.	Size	Price
Tubulin-α-1, His•Tag® fusion, *E. coli*	Full-length, recombinant, human tubulin-α-1 (TBA1, TUBA1, α-tubulin 1) expressed in *E. coli* with N-terminal His•Tag® and S•Tag™ sequences. This preparation is qualified for use as a substrate for protein tyrosine kinases in *in vitro* assays. *Purity: >90% by SDS-PAGE.*	654161	50 µg	$130
Tubulin-γ-1, His•Tag® fusion	Full-length, recombinant, human tubulin-γ-1 (GCP-1, γ-1 tubulin) expressed in *E. coli* with N-terminal His•Tag® and S•Tag™ sequences. This preparation is qualified for use as a substrate for protein tyrosine kinases in *in vitro* assays. *Purity: >90% by SDS-PAGE.*	654163	50 µg	$130
Anti-WASL/N-WASP Rabbit pAb	Recognizes the ~55 kDa WASL protein in SiHa cells. **IB**	AP1049	50 µg	$145

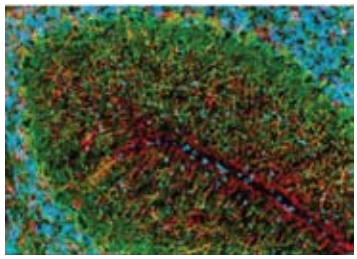
DNA Damage/Repair Related Products

DNA Base Excision Repair Pathway Inhibitor	A cell-permeable, potent, specific, and nontoxic inhibitor of the DNA repair enzyme, APE1 (human apurinic/apyrimidinic endonuclease; IC_{50} ~ 3 µM).	262015	25 mg	$80
Anti-PARC (1-763) Rabbit pAb	Recognizes a ~270 kDa PARC protein in U2OS cells. **IB, IP**	DR1040	50 µl	$145
PARP, Bovine Thymus	Full-length Poly (ADP-ribose) polymerase (PARP) purified from bovine thymus using DNA-cellulose affinity chromatography. *Specific activity: ≥200 nmol ADP-ribose/min/mg protein.*	124025	100 µg	$296
PARP Inhibitor XI, DR2313	A water soluble pyrimidinone compound that acts as a potent and NAD^+-competitive inhibitor of PARP (IC_{50} = 200 nM and 240 nM for rhPARP1 and rmPARP2, respectively). Can cross the blood-brain barrier.	528819	5 mg	$120
Anti-PARP10 Rabbit pAb	Recognizes the ~110 kDa PARP10 protein in U937 cells. **IB**	AP1048	50 µg	$145
Anti-SMG1 Rabbit pAb	Recognizes the ~340 kDa SMG protein (Accession Number: NP_0055907) in HeLa cell nuclear extracts. **IB**	DR1035	50 µg	$145

G-Protein coupled Receptor Agonist/Antagonist

G-Protein, β_1 Human, γ_2 Bovine, Recombinant, *S. frugiperda*	Active G-protein $\beta_1\gamma_2$ dimers expressed in and purified from doubly infected *S. frugiperda* insect cells. The γ_2-subunit contains a His•Tag® sequence. Functional in a variety of βγ dependent assays and suitable for use in reconstitution experiments. M.W. ~ 37,000 (β_1) and ~8,800 (γ_2). *Purity: >90% by SDS-PAGE.*	371795	5 µg	$436
GPR30 Agonist, G-1	A cell-permeable, high-affinity agonist for GPR30, the G protein-coupled transmembrane estrogen receptor in ER. Shown to stimulate GPR30-mediated cellular PI3K activation and calcium mobilization (EC_{50} = 2 nM in COS7 cells) and inhibit migration of SKBr3 and MCF7 cells toward chemotractants (IC_{50} = 0.7 and 1.6 nM, respectively).	371705	5 mg	$120
Obestatin, Human, Synthetic	Activates the orphan G protein-coupled receptor GPR39 (K_d = 1 nM) and stimulates cAMP production in GPR39-expressing CHO and GPR39-expressing HEK293T cells.	494125	2 mg	$166
Ras/Rac Transformation Blocker, SCH 51344	A cell-permeable compound that acts as an effective blocker of Ras-induced malignant transformation and inhibits Ras/Rac-dependent dissociation of EMS1 from the actin-myosin II complex and membrane ruffling.	553509	10 mg	$120

ELISA: enzyme-linked immunosorbent assay; **CIA:** cell inhibition assay; **FC:** flow cytometry; **FS**: frozen sections; **IF:** immunofluorescence; **IB**: immunoblotting; **IC**: immunocytochemistry; **IH**: immunohistochemistry; **IP**: immunoprecipitation; **PS**: paraffin sections



Anti-GFAP Cocktail Mouse mAb (SMI-22)
Cat. No. NE1015

Detection of rat glial fibrillary acidic protein by staining frozen sections. Sample: Rat brain. Primary antibody: Anti-GFAP Cocktail Mouse mAb (SMI-22) (Cat. No. NE1015) (1:1000). Detection: fluorescence (red) with Hoechst 33342 counterstain.

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Technical Support
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Product	Application	Cat. No.	Size	Price

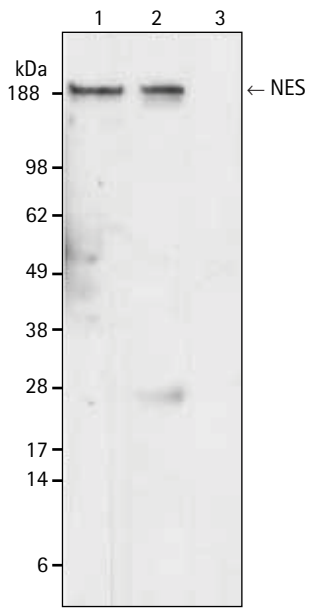
Glycobiology Related Products

CMP-Sialic Acid, Monosodium Salt	Activated form of sialic acid that is required for the biosynthesis of sialic acid-containing complex carbohydrates.	233264	1 mg 5 mg 25 mg	$27 $129 $563
β1,3-Galactosidase, *Xanthomonas manihotis*, Recombinant, *E. coli*	Cleaves terminal β 1,3-linked galactose residues on oligosaccharides. Has >100-fold kinetic preference for β1,3-over β1,6-linkages and 500-fold kinetic preference for β1,3-over β 1,4-linkages. *Activity: ≥2000 units/ml.*	345795	500 U	$278
Galectin-1, Human, Recombinant, *E. coli*	Recombinant human galectin-1 expressed in and purified from *E. coli*. Galectin-1 can induce apoptosis of activated T cells and leukemic T cell lines. It also binds to CD45 and inhibits its protein phosphatase activity. *Purity:≥98% by SDS-PAGE.*	345831	50 µg	$268
Galectin-3C, Human, Recombinant, *E. coli*	Galectin-3C is a truncated form of galectin-3 that contains the carbohydrate binding domain but lacks the 107 amino acids at the N-terminus of galectin-3. It is suggested to play a key role in autoimmune diseases, allergic reactions, inflammation, tumor cell metastasis, atherosclerosis, and diabetes. *Purity:≥95% by SDS-PAGE.*	345832	100 µg	$476
Glucoamylase, *Rhizopus sp.*	Native glucoamylase purified from *Rhizopus* species. Catalyzes the hydrolysis of 1,4-linked α-D-glucose residues in glucosylpolysaccharides, liberating glucose units. Useful for the enzymatic determination of starch. *Specific activity:≥20 units/mg protein.*	172426	5 KU	$164

Heat Shock Proteins and Related Products

Anti-Hsp27 Mouse mAb (EMD-35)	Recognizes the ~27 kDa Hsp27 (heat shock protein 27) protein in HeLa cells. **ELISA, IB, IC, IP**	CA1025	50 µg	$145
Hsp47 Inhibitor	A thioether compound that inhibits collagen-specific Hsp47-induced collagen chaperone activity in an *in vitro* fibril formation assay (IC_{50} = 6.3 µM).	385874	10 mg	$134

ELISA: enzyme-linked immunosorbent assay; **CIA:** cell inhibition assay; **FC:** flow cytometry; **FS**: frozen sections; **IF:** immunofluorescence; **IB**: immunoblotting; **IC**: immunocytochemistry; **IH**: immunohistochemistry; **IP**: immunoprecipitation; **PS**: paraffin sections



Anti-Nestin Rabbit pAb
Cat. No. ST1117

Lane 1: Detection of human nestin by immunoblotting. Sample: Whole cell lysate (20 µg) from SHSY-5Y cells. Primary antibody: Anti-Nestin Rabbit pAb (Cat. No ST1117) (0.5 µg/ml). Detection: chemiluminescence. Lanes 2 and 3: Detection of human nestin by immunoprecipitation followed by immunoblotting. Sample: Whole cell lysate from (500 µg) from SHSY-5Y cells (lane 2) and negative control sample (lane 3). Antibody for immunoprecipitation: Anti-Nestin Rabbit pAb (Cat. No. ST1117) (5 µg). Immunoblotting conditions: same as lane 1.

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Product	Application	Cat. No.	Size	Price
Hsp90α ELISA Kit	Quantitative sandwich immunoassay for measuring human Hsp90α protein in cell lysates, tissue extracts and biological fluids. This kit is specific for Hsp90α and does not cross-react with Hsp90β.	CBA057	1 kit	$495
Anti-Hsp90β Mouse mAb (EMD-5E12)	Recognizes the ~90 kDa Hsp90α (heat shock protein 90 α) protein in HeLa cells. Does not recognize Hsp90β. **ELISA, IB, IP**	CA1023	50 µg	$145
Hsp90β, His·Tag®, Human, Recombinant, *S. frugiperda*	Human full-length HSP90β (amino acids 1-724) (GenBank target symbol= HSPCB, accession number = NM_007355) with an N-terminal His•Tag® sequence expressed and purified from *S. frugiperda* insect cells.	385903	20 µg	$137
Anti-Hsp90β Mouse mAb (EMD-5E12)	Recognizes the ~90 kDa Hsp90β (heat shock protein 90 β) protein in HeLa cells. Does not recognize Hsp90α. **ELISA, IB , IC, IP**	CA1024	50 µg	$145

Histone Deacetylase (HDAC) and HDAC Inhibitor

Histone Deacetylase, Human, Recombinant, *S. frugiperda*	Recombinant human histone deacetylase 3 (HDAC3) expressed in *S. frugiperda* insect cells using a baculovirus expression system.	382169	5000 U	$359
Histone Deacetylase Inhibitor IV	A cell-permeable compound that acts as a *FXN*- (frataxin gene) specific HDAC (histone deacetylase) inhibitor.	382170	10 mg	$192
Anti-TIP60 Rabbit pAb	Recognizes the ~60 kDa TIP60 protein in Saos-2 cells. **IB, IP**	DR1041	50 µl	$145

Hormones, Growth Factors, and Cytokines

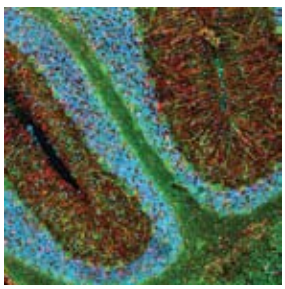
Antibody

Anti-Androgen Receptor Rat mAb (AN1-15)	Recognizes the ~110 kDa androgen receptor in rat brain tissue. **FS, IB, IC, IP, PS**	CA1022	50 µg	$291

Proteins

Androgen Receptor, Human, Recombinant, *S. frugiperda*	Recombinant, human androgen receptor (AR) expressed using a baculovirus expression system and purified by affinity chromatography.	346101	5000 U	$436
BMP-2, Human, Recombinant, *E. coli*	Recombinant, human bone morphogenetic protein-2 (BMP-2) expressed in *E. coli* and purified by proprietary chromatographic methods. *Purity:≥95% by SDS-PAGE.*	203641	2 µg	$130

ELISA: enzyme-linked immunosorbent assay; **CIA:** cell inhibition assay; **FC:** flow cytometry; **FS**: frozen sections; **IF:** immunofluorescence; **IB**: immunoblotting; **IC**: immunocytochemistry; **IH**: immunohistochemistry; **IP**: immunoprecipitation; **PS**: paraffin sections



Anti-Neurofilament H Non-Phosphorylated Mouse mAb (SMI-32)
Cat. No. NE1023

Detection of non-phosphorylated rat neurofilament H by staining frozen sections. Sample: Rat brain. Primary antibody: Anti-Neurofilament H Non-Phosphorylated Mouse mAb (SMI-32) (Cat. No. NE1023) (1:1000). Detection: fluorescence (green) with Hoechst 33342 counterstain.

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Technical Support
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Product	Application	Cat. No.	Size	Price
BMP-4, Human, Recombinant, *E. coli*	Recombinant, human bone morphogenetic protein-4 (BMP-4) expressed in *E. coli* and purified by proprietary chromatographic methods. *Purity:≥95% by SDS-PAGE.*	203642	2 µg	$130
BMP-6, Human, Recombinant, *E. coli*	Recombinant, human bone morphogenetic protein-6 (BMP-6) expressed in *E. coli* and purified by proprietary chromatographic methods. BMP-6 is an osteogenic protein belonging to the transforming growth factor-β (TGF-β) superfamily. *Purity:≥95% by SDS-PAGE.*	203643	2 µg	$130
BMP-7, Human, Recombinant, *E. coli*	Recombinant, human bone morphogenetic protein-7 (BMP-7) expressed in *E. coli* and purified by proprietary chromatographic methods. *Purity:≥95% by SDS-PAGE.*	203645	2 µg	$130
Glucocorticoid Receptor Modulator, CpdA	A cell-permeable aziridine precursor that acts as a nonsteroidal glucocorticoid receptor (GR, Cat. No. 346100) ligand with a binding affinity that is 4-fold higher than that of Dexamethasone (DEX, Cat. No. 265005). *Purity:≥97% by HPLC.*	346110	25 mg	$129
Granulocyte Macrophage Colony-Stimulating Factor, Mouse, Recombinant, *E. coli*	Pleiotropic cytokine that can stimulate the proliferation, maturation, and function of hematopoietic cells. Reported to improve the response rate to antibiotic therapy in cancer subjects. Activates JAK2 in a variety of cells. *Purity:≥97% by SDS-PAGE.*	234374	10 µg	$319
HIV-1 Protease, Recombinant, *E. coli*	Recombinant HIV-1 protease expressed in *E. coli* and purified by affinity chromatography using FPLC. *Biological activity: 20-200 ng is sufficient for an in vitro protease assay. Purity:≥ 85% by SDS-PAGE.*	382136	10000 U	$359
HGF Activator, His•Tag®, Human, Recombinant, NSO Cells	Recombinant human hepaptocyte growth factor activator (HGFA) consisting of amino acids 1-655, expressed in NS0 mouse myeloma cells with an N-terminal 10X His•Tag® sequence. *Specific activity: ≥15 pmol/min/µg activated HGFA. Purity:≥95% by SDS-PAGE.*	539662	10 µg	$337
β-Interferon, Human, Recombinant, CHO Cells	Recombinant, human interferon-β (IFN-β) expressed in CHO cells as a single glycosylated polypeptide containing 166 amino acids. Purified by chromatographic methods. *Purity: single prominent band at 22.5 kDa by SDS-PAGE.*	407318	2 µg 10 µg	$118 $294
γ-Interferon, Human, Recombinant, *E. coli*	A multi-functional protein consisting of 144 amino acids. Exhibits antiviral and antitumor properties. Regulates the development of specific immune responses. *Purity:≥95% by SDS-PAGE.*	407306	100 µg	$557
γ-Interferon, Mouse, Recombinant, *E. coli*	A multi-functional protein exhibiting antiviral and antitumor properties. Regulates the development of specific immune responses. Protects against bacterial sepsis in murine models. *Purity:≥95% by SDS-PAGE.*	407303	20 µg	$271
γ-Interferon, Mouse, Recombinant, *E. coli*	Recombinant murine interferon-γ (IFN-γ) expressed in *E. coli* as a single, non-glycosylated polypeptide containing 134 amino acids. Purified by chromatographic methods. *Purity:≥95% by RP-HPLC, FPLC, and SDS-PAGE.*	407320	20 µg 100 µg	$118 $337
γ-Interferon, Rat, Recombinant, *E. coli*	A multi-functional protein exhibiting antiviral and antitumor properties. Regulates the development of specific immune responses. Inhibits rat Leydig cell steroidogenesis. *Purity:≥95% by SDS-PAGE.*	407304	10 µg	$255
γ-Interferon, Rat, Recombinant, *E. coli*	Recombinant rat interferon-γ (IFN-γ) expressed in *E. coli* as a single, non-glycosylated polypeptide containing 135 amino acids. Purified by chromatographic methods. *Purity: >95% by RP-HPLC, FPLC, and SDS-PAGE.*	407321	20 µg 100 µg	$118 $337
Inhibitors/Antagonists				
Chromeceptin	A cell-permeable blocker of insulin-induced adipogenesis in 3T3-L1 cells (100% blockage at ≤ 20 ng/µl) and selectively suppresses IGF2- (insulin-like growth factor 2) dependent growth of HepG2 carcinoma cells (IC_{50} = 29 nM). Shown to bind to MFP-2 (multifunctional protein-2) and activate STAT6-mediated gene expression, such as IGFBP-1 and SOCS-3, in HepG2 cells.	230751	5 mg	$120
Glucagon Receptor Antagonist I	A cell-permeable, potent, selective, and competitive antagonist of the glucagon receptor. Shown to bind to hGCGR with high affinity and prevent its interaction with glucagon (IC_{50} = 181 nM, K_{DB} = 81 nM, and *p*A2 = 7.1 in membranes prepared from CHO-hGCGR).	346001	1 mg 5 mg	$92 $284
Glucagon Receptor Antagonist II	A cell-permeable compound that acts as a selective, non-competitive, high affinity glucagon receptor antagonist (IC_{50} = 3.7 nM, 63 nM, and 60 nM for inhibition of labeled glucagon binding to human, murine, and canine glucagon receptor, respectively).	346003	5 mg	$123
Glucagon Receptor Antagonist, Control	A cell-permeable compound that serves as an inactive control for Glucagon Receptor Antagonist (Cat. No. 346001).	346002	1 mg 5 mg	$92 $284
IL-2Rα Antagonist	A non-peptidyl acylphenylalanine compound that binds to IL-2 and acts as a competitive inhibitor of the IL-2/IL-2Rα interaction (IC_{50} = 3 µM).	407621	5 mg	$145
TNF-α Inhibitor	A cell-permeable compound that rapidly inactivates TNF-α by non-covalently binding to the TNF-α trimer and promoting subunit dissociation and preventing TNF-α binding to its receptor (IC_{50} = 22 µM).	654256	5 mg	$192

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Product	Application	Cat. No.	Size	Price
Lipid Signaling Related Products				
Kits				
Cholesterol/Cholesteryl Ester Quantitation Kit	A sensitive assay for the quantitative measurement of cholesterol, and/or cholesteryl ester, by either colorimetric or flurometric method. *Assay range: 0.02-10 µg/well.*	428901	1 kit	$325
COX-2 **ELISA** Kit	Detects and quantifies human COX-2 in cell lysates and tissue extracts. *Assay range: 2.5-200 ng/ml.*	CBA053	1 kit	$525
Antibody				
Anti-5-Lipoxygenase (130-149) Rabbit pAb	Recognizes the ~78 kDa 5-lipoxygenase protein in porcine leukocytes. **IB**, **IC**, **IH**	438001	1 each	$271
Inhibitors/Activators				
COX-2 Inhibitor III (BTB02472)	An active-site-targeting COX-2 inhibitor that exhibits better selectivity than Nimesulide and Celecoxib (% inhibition of COX-1 and COX-2 at 10.0 µM inhibitor concentration = 5.1 and 26.36 with BTB 02472; 9.87 and 19.94 with Nimesulide; 12.35 and 40.37 with Celecoxib).	236013	25 mg	$130
COX-2 Inhibitor IV	A thiourea compound that acts as an active-site-targeting COX-2 inhibitor with a potency and selectivity (inactive against COX-1 vs. 33.85% inhibition of COX-2 at 10.0 µM inhibitor concentration) comparable to that of Rofecoxib.	236014	25 mg	$130
Lipase Inhibitor, THL	A cell-permeable and a selective tight-binding, irreversible inhibitor of gastric and pancreatic lipases.	437701	50 mg	$97
Lipoprotein Lipase Activator	A cell-permeable inducer of lipoprotein lipase (LPL) mRNA and protein levels. Lowers serum lipid levels and plasma triglycerides with concomitant elevation in high-density lipoprotein cholesterol (HDL-C) in animal models.	437704	5 mg	$102
Monoacylglycerol Lipase Inhibitor, URB602	A cell-permeable, selective, and non-competitive inhibitor of monoacylglycerol lipase (IC_{50} = 28 µM for rat brain MGL).	475740	10 mg	$102
Matrix Metalloproteinases and Related Products				
Antibody				
Anti-ADAMTS4 Rabbit pAb	Recognizes the ~98 kDa pro-form and the ~64 kDa active form of ADAMTS4 in rat brain and human rhabdomyelosarcoma cells. **IB**	CA1027	100 µg	$296
Inhibitors				
MMP-2 Inhibitor II	An oxirane analog of SB-3CT, *p*MS (Cat. No. 444285) that acts as a selective, active site-binding, irreversible inhibitor of MMP-2 (K_i = 2.4 µM).	444286	5 mg	$150
MMP-2 Inhibitor III	A cell-permeable, potent and Zn^{2+}-binding site-targeting inhibitor of MMP-2 (IC_{50} = 12 nM).	444288	5 mg	$187
MMP-2/MMP-3 Inhibitor III, PD166793	A cell-permeable and potent inhibitor against MMP-2, -3, and -13 (IC_{50} = 47, 12, and 8 nM, respectively).	444284	5 mg	$125
MMP-2/MMP-9 Inhibitor V	A cell-permeable sulfonamido analog of SB-3CT (Cat. No. 444274) that displays enhanced aqueous solubility and improved selectivity (K_i = 16 nM, 180 nM, and 900 nM for MMP-2, MMP-9, and MMP-14, respectively).	444285	500 µg	$139
MMP-13 Inhibitor	A potent inhibitor of MMP-13 activity (IC_{50} = 8 nM) with expected selectivity over MMP-1, -2, -3, -7, -8, -9, -10, -12, -14 and -16 as determined by conformational structure analysis.	444283	1 mg	$97
Enzyme				
MMP-13, Human, Recombinant, Active	Human, recombinant, active MMP-13. *Specific activity: ≥50 mU/mg protein.*	444287	5 µg	$255

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Technical Support
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Product	Application	Cat. No.	Size	Price
Mitochondrial Research Antibodies				
Anti-ANT Mouse mAb (5F51BB5AG7)	Recognizes the ~30 kDa ANT (adenine nucleotide translocase) protein in cultured fibroblasts. **IB, IC, IP**	AP1034	50 µg	$236
Anti-Cyclophilin D Mouse mAb (E11AE12BD4)	Recognizes the ~16 kDa cyclophilin D (CyPD) protein in cultured fibroblasts. **IB, IC**	AP1035	50 µg	$236
Anti-Cytochrome *c* Mouse mAb (6H2.B4)	Recognizes the ~15 kDa cytochrome *c* (CYT) protein. **FC, IC, IP**, NOT **IB**	AP1030	50 µg	$145
Anti-Cytochrome *c* Mouse mAb (7H8.2C12)	Recognizes the ~15 kDa cytochrome *c* (CYT) protein in MCF7, P38801, Hela, Jurkat, or NIH/3T3 cells. **FC, IB, IC**, NOT **IP, PS**	AP1029	50 µg	$145
Anti-F_1F_0-α Mouse mAb (7H10BD4F9)	Recognizes the F_1F_0-α subunit of Complex V in bovine heart mitochondria. **CIA, IB, IC**	AP1036	50 µg	$236
Anti-F_1F_0-β Mouse mAb (3D5AB1)	Recognizes the F_1F_0-β subunit of Complex V in bovine heart mitochrondria. **CIA, IB, IC, IP**	AP1037	50 µg	$236
Neuroscience Related Products				
Kit				
InnoZyme™ TACE Activity Kit	A specific and sensitive assay designed to measure human TACE activity in cell lysates and biological samples and for screening enzyme inhibitors. *Assay range: 5-100 ng/ml as measured with purified recombinant human TACE.*	CBA042	1 kit	$442
Activator				
Hyperforin	A potent activator (EC_{50} = 23 nM) of pregnane X receptor (PXR), an orphan nuclear receptor that regulates expression of the cytochrome P450 (CYP) 3A4 mono-oxygenase. Inhibits uptake of serotonin (5-HT), dopamine (DA), noradrenaline (NA), GABA (IC_{50} = 50-100 ng/ml), and L-glutamate (IC_{50} = 500 ng/ml) in synaptosomal preparations.	400071	100 µg	$177
Neuropathiazol	A cell-permeable, potent, and selective inducer of neuronal differentiation. Induces the differentiation of adult neural progenitor HCN cells into mature neurons (10 µM for 10 days) and competitively suppress astrogliogenesis by LIF/BMP2/FBS in a dose-dependent manner.	480745	5 mg	$148
Antibodies				
Anti-GFAP Cocktail Mouse mAb (SMI-22)	Recognizes ~50 kDa glial fibrillary acidic protein (GFAP) in human and bovine cytoskeletal preparations. **ELISA, FS, IB, IC, PS**	NE1015	100 µl	$276
Anti-Myelin Basic Protein Mouse mAb (SMI-94)	Recognizes the ~21 kDa myelin basic protein (MBP) in rat brain extracts. **ELISA, FS, IB, IC, PS**	NE1018	100 µl	$365
Anti-Myelin Basic Protein Mouse mAb (SMI-99)	Recognizes the ~21 kDa myelin basic protein (MBP) in rat brain extracts. Does not recognize the 14 kDa form. Recognizes most mammalian species. **ELISA, FS, IB, IC, PS**	NE1019	100 µl	$284
Anti-Myelin CNPase Mouse mAb (SMI-91)	Recognizes the ~46 and ~48 kDa subunits of the 94 kDa myelin CNPase dimer in rat brain extracts. **ELISA, FS, IB, IC, PS**	NE1020	100 µl	$276
Anti-Nestin Mouse mAb (2C13B9)	Recognizes the ~220-240 kDa nestin protein in U251 cells. **FS, IB, IC**	ST1111	100 µl	$244
Anti-Nestin Rabbit pAb	Recognizes the ~220 kDa nestin protein in SHSY-5Y cells. **IB, IP**	ST1117	50 µg	$145
Anti-Neurofilament H Non-Phosphorylated Mouse mAb (SMI-32)	Recognizes the non-phosphorylated ~180 kDa-200 kDa neurofilament H protein in rat central nervous system (CNS) cytoskeletal preparations. **ELISA, FS, IB, IC, PS**	NE1023	100 µl	$305

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Product	Application	Cat. No.	Size	Price
PhosphoDetect™ Anti-Neurofilament-H Mouse mAb (SMI-31)	Recognizes the ~180-200 kDa phosphorylated neurofilament H (NF-H) protein in rat central nervous system (CNS) cytoskeletal preparations. Also weakly recognizes phosphorylated NF-M protein. **ELISA, FS, IB, IC, PS**	NE1022	100 µl	$305
Anti-p75 Neurotrophin Receptor Rabbit pAb	Recognizes the ~75 kDa neurotrophin receptor (p75NTR) protein in cultured mouse fibroblasts stably transfected with human p75NTR. Also recognizes additional lower MW proteins that are cleavage products of p75NTR. **IB, IC**	NE1024	100 µl	$345
Anti-Pan-Axonal Neurofilament Marker Mouse mAb (SMI-312)	Recognizes the ~180-200 kDa pan-axonal neurofilament marker in rat CNS (central nervous system) cytoskeletal preparations. **ELISA, FS, IB, IC, PS**	NE1016	100 µl	$305
Anti-Pan-Neuronal Neurofilament Marker Mouse mAb (SMI-311)	Recognizes ~180-200 kDa pan-neuronal neurofilament marker in rat CNS (central nervous system) cytoskeletal preparations. **ELISA, FS, IB, IC, PS**	NE1017	100 µl	$305
Anti-ProBACE1 (24-45) Rabbit pAb	Recognizes the ~60 kDa proBACE1 protein in N2a cells. **IB, IC, IP**	NE1025	100 µl	$345
Anti-Rat Blood-Brain Barrier Mouse mAb (SMI-71)	Recognizes an endothelial protein found in blood-brain or blood-nerve barriers in rat. **ELISA, FS,** NOT **IB, PS**	NE1026	100 µl	$284
Anti-Serotonin 5A (5-HT_{5A}) Receptor Rabbit pAb	Recognizes the ~41 kDa serotonin 5A (5-HT_{5A}) receptor and the ~47 kDa form that may represent a glycosylated form of 5-HT_{5A} receptor. **IB, IH**	PC248	100 µl	$357
Anti-SNAP-25 (195-206) Rabbit pAb	Recognizes the ~25 kDa SNAP-25 protein in mouse and rat brain tissue extracts. **IB, IP**	NE1014	100 µl	$307
Channel Blockers				
CFTR Inhibitor II, GlyH-101	A cell-permeable, potent, selective, and reversible open-channel blocker of CFTR.	219671	5 mg	$120
Verruculogen, *Penicillium verruculosum*	A neurotoxin that blocks Ca^{2+}-activated K^+ channels.	681000	510 µg 1 mg	$45 $68
Inhibitors				
Polyglutamine Aggregation Inhibitor III, C2-8	A cell-permeable potent inhibitor of polyglutamine (polyQ)-aggregation in Huntington's disease (HD); CA1 neuronal hippocampal slices in the range of 0.1 µM - 10 µM, and Htt-103Q-EGFP PC12 cells with an IC_{50} of 50 nM.	528887	10 mg	$126
β-Secretase Inhibitor IV	A cell-permeable isophthalamide compound containing hydroxyethylamine motif that binds to BACE-1 active site and potently blocks its proteolytic activity (IC_{50} = 15 nM for BACE-1, human and 29 nM for sAPP_NF in HEK293-APP^{NFEV} cells).	565788	1 mg	$155
γ-Secretase Inhibitor XX	A cell-permeable potent γ-secretase inhibitor and significantly lowers both brain and plasma $Aβ_{40}$ levels by ~72% in Tg2576 mutant APP transgenic mouse model (100 µmol/kg, b.i.d).	565789	500 µg	$199
γ-Secretase Inhibitor XXI	A cell-permeable, potent, selective, peptidomimetic, non-transition-state analog inhibitor of γ-secretase and Notch processing (IC_{50} = 300 pM for $Aβ_{40}$ in CHO cells overexpressing wild typeβAPP; 240 pM for $Aβ_{40}$, 370 pM for $Aβ_{42}$, and 320 pM for NICD, respectively, in HEK293 cells stably transfected with$βAPP_{695}$ and mNotchΔE(M1727V); 100 pM for both $Aβ_{40}$ and $Aβ_{42}$ in SH-SY5 Y cells stably transfected with SPA4CT).	565790	500 µg	$199
γ-Secretase Modulator, CW	A cell-permeable benzoate that effectively inhibits $Aβ_{42}$ as well as $Nβ_{25}$ (Notch-1 Ab-like 25-mer peptide; VKSEPVEPPLPSQLHLMYVAAAAFV) secretion during presenilin (**PS**)-dependent intramembrane proteolysis in cells.	234515	100 mg	$78
InSolution™ TAPI-1	A 10 mM (500 µg/100 µl) solution of TAPI-1 (Cat. No 579051) in DMSO.	579053	500 µg	$145
Glutamate Receptor Agonist/Antagonist				
mGluR5 Antagonist, MTEP	A brain-permeable, potent, selective and non-competitive mGluR (metabotropic glutamate receptor subtype-5) antagonist (IC_{50} = 5 nM in Ca^{2+}-flux assay; K_i = 16 nM) with *in vivo* anxiolytic activity in rodent model (ED_{50} = 1 mg/kg, i.p., and 7 mg/kg, p.o).	445874	5 mg	$92
mGluR5 Ligand, CDPPB	A potent, selective, reversible, and positive allosteric modulator for metabotropic glutamate receptor subtype 5 (mGluR5).	445865	1 mg	$75

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Product	Application	Cat. No.	Size	Price
NF-κB Related Products				
Kits				
IκBα ELISA Kit	Detects and quantifies the level of IκBα independent of its phosphorylation state. *Assay range: 62.5-4000 pg/ml; sensitivity: <30 ng/ml*	CBA064	1 kit	$575
K-LISA™ IKKβ Inhibitor Screening Kit	A screening kit designed for rapid *in vitro* screening of IKKβ inhibitors. *Assay range: 5-10 ng.*	CBA044	1 kit	$380
Antibody				
Anti-MAVS Rabbit pAb	Recognizes the ~56 kDa MAVS protein in Saos-2 cells. **IB, IP**	ST1116	50 µg	$145
Inhibitors				
Acetyl-11-keto-β-Boswellic Acid, *Boswellia serrata*	A cell-permeable blocker of phosphorylation and degradation of IκBα and inhibits NF-κB-mediated gene transcription in chemoresistant, androgen-independent PC-3 prostate cancer cells (~10 µM).	110123	5 mg	$175
Evodiamine, *Evodia rutaecarpa*	A cell-permeable compund that suppresses both inducible and constitutive NF-κB activation and NF-κB-regulated gene expression activation by inhibiting IKK activation.	341211	5 mg	$155
IKK Inhibitor III, BMS-345541	A cell-permeable, potent, selective, and allosteric site-binding inhibitor of IKK-2 (IC_{50} ~ 300 nM).	401480	1 mg	$164
InSolution™ IKK-2 Inhibitor, SC-514	A 25 mM (1 mg/178 µl) solution of IKK-2 Inhibitor, SC-514 (Cat. No. 401479) in DMSO.	401485	1 mg	$82
InSolution™ IKK-2 Inhibitor IV	A 10 mM (500 µg/179 µl) solution of IKK-2 Inhibitor IV (Cat. No. 401481) supplied in DMSO.	401484	500 µg	$87
IKK Inhibitor VII	A cell-permeable, potent, selective, and ATP-competitive inhibitor of IKK (IC_{50} = 40 nM, 70 nM, and 200 nM for IKK-2, IKK complex, and IKK-1, respectively).	401486	1 mg	$120
IKK-2 Inhibitor VIII	A cell-permeable, selective inhibitor of IKK-2 activity (IC_{50} = 8.5 and 250 nM for IKK-2 and IKK-1, respectively) with little effect towards IKK-3, Syk, and MKK4 (IC_{50} > 20 µM).	401487	1 mg	$135
InSolution™ NF-κB Activation Inhibitor	A 10 mM (1 mg/281 µl) solution of NF-κB Activation Inhibitor (Cat. No. 481406) in DMSO.	481407	1 mg	$82
NF-κB Activation Inhibitor II, JSH-23	A cell-permeable, selective blocker of nuclear translocation of NF-κB p65. Does not significantly affect IκB degradation in LPS-stimulated macrophages RAW 264 stably transfected with pNF-κB-SEAP-NPT (IC_{50} = 7.1 µM).	481408	5 mg	$123
NF-κB Activation Inhibitor III	A cell-permeable compound that inhibits TNF-α-stimulated NF-κB activation and subsequent upregulation of MMP-9 in HT1080 cells (complete inhibition at 10 µM).	481411	5 mg	$118
NF-κB Activation Inhibitor IV	A cell-permeable *trans*-stilbene Resveratrol (Cat. No. 554325) analog that is shown to be ~130-fold more potent than Resveratrol in inhibiting TNF-α-stimulated NF-κB reporter activity in 293T cells (IC_{50} = 150 nM).	481412	10 mg	$125
Oridonin, *R. rubescens*	A cell-permeable compound with anti NF-κB activity. Shown to block LPS-induced NF-κB activity in Jurkat and in RAW264.7 murine macrophages, and inhibit NF-κB transcriptional activity (IC_{50} ~ 5 µg/ml in MT-1 cells) by disrupting NF-κB DNA-binding activity without interfering with its nuclear translocation.	496915	5 mg	$85
Nitric Oxide and Oxidative Stress Related Products				
Catalase Assay Kit	A sensitive spectrophotometric assay (540 nm) for the measurement of catalase (CAT) activity in plasma, serum, erythrocyte lysates, tissue homogenates, and cell lysates. Assay range: 0.25-4 nmol/min/ml. Contains sufficient reagents for 96 tests.	219265	1 kit	$401
Caveolin-1 Scaffolding Domain Peptide, Cell-permeable	Caveolin-1 scaffolding domain peptide (C1-SD_{82-101}) fused at the N-terminus to the cell-permeable antennapedia internalization sequence (43-58). This peptide is reported to block eNOS activity and cellular NO release *in vitro* and reduce inflammation and tumorigenesis *in vivo*.	219482	1 mg	$152

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Product	Application	Cat. No.	Size	Price
Caveolin-1 Scaffolding Domain Peptide, Cell-permeable, Negative Control	A scrambled caveolin-1 scaffolding domain peptide (C1-SD$_{82-101}$) fused at the N-terminus to the antennapedia internalization sequence (43-58). Serves as an useful negative control for studies using Caveolin-1 Scaffolding Domain Peptide, Cell-permeable (Cat. No. 219482).	219483	1 mg	$219
Glutathione Peroxidase Assay Kit	A sensitive spectrophotometric assay (340 nm) for the measurement of glutathione peroxidase (GPx) activity in plasma, erythrocyte lysates, tissue homogenates, and cell lysates. *Assay range: 50-344 nmol/min/ml.* Contains sufficient reagents for 96 tests.	353919	1 kit	$401
Glutathione Reductase Assay Kit II	A sensitive spectrophotometric assay (340 nm) for the measurement of glutathione reductase (GR) activity in plasma, erythrocyte lysates, tissue homogenates, and cell lysates. *Assay range: 20-255 nmol/min/ml.* Contains sufficient reagents for 96 tests.	359963	1 kit	$401
Lipid Hydroperoxide (LPO) Assay Kit	A sensitive and reliable assay kit for the measurement of the hydroperoxides from any sample containing lipid hydroperoxides, directly utilizing the redox reactions with ferrous ions. *Assay range: 0.25-5 nmol hydroperoxide per assay tube*	437639	1 kit	$401
Anti-nNOS (NOS1) (1414-1434) Rabbit pAb	Recognizes the ~155 kDa nNOS protein in brain extracts. **ELISA, IB, IF**	ST1095	100 µg	$307
Superoxide Dismutase, Human, Recombinant, *E. coli*	Recombinant human superoxide dismutase (SOD) expressed in *E. coli* as a homodimer consisting of 2 identical, 154-amino acid chains. Purified by proprietary chromatographic methods. *Activity: ≥5000 units/mg. Purity: ≥90% by SDS-PAGE.*	574591	100 µg	$337

Phosphodiesterases

Inhibitor

Phosphodiesterase 4 Inhibitor	A high-affinity active site binding inhibitor of phosphdiesterase 4B and 4D (IC_{50} = 33 nM and 21 nM respectively.)	524717	10 mg	$134

Enzymes

Phosphodiesterase 1A3, Active, Human, Recombinant, *S. frugiperda*	A full-length, partially purified, catalytically active human PDE 1A3 expressed in *S. frugiperda* insect cells. *Activity: ≥0.5 units/ml.*	524740	10 U	$225
Phosphodiesterase 3A1, Catalytic Domain, Human, Recombinant, *S. frugiperda*	A full-length, partially purified, catalytically active human PDE 3A1 expressed in *S. frugiperda* insect cells. *Activity: ≥0.5 units/ml.*	534736	10 U	$234
Phosphodiesterase 4A4, Active, Human, Recombinant, *S. frugiperda*	A full-length, partially purified, catalytically active human PDE 4A4 expressed in *S. frugiperda* insect cells. Activity: ≥0.5 units/ml.	524731	10 U	$234
Phosphodiesterase 3B, Active, Human, Recombinant, *S. frugiperda*	A full-length, partially purified, catalytically active human PDE 3B expressed in *S. frugiperda* insect cells. Activity: ≥0.5 units/ml.	524734	10 U	$234
Phosphodiesterase 4B2, Active, Human, Recombinant, *S. frugiperda*	A full-length, partially purified, catalytically active human PDE 4B2 expressed in *S. frugiperda* insect cells. *Activity: ≥0.5 units/ml.*	524736	10 U	$234
Phosphodiesterase 4B2, Catalytic Domain, His•Tag®, Human, Recombinant, *S. frugiperda*	A full-length, partially purified, catalytically active human PDE 4B2 expressed in *S. frugiperda* insect cells. Activity: ≥0.5 units/ml.	524732	10 U	$234
Phosphodiesterase 4C2, Active, Human, Recombinant, *S. frugiperda*	A full-length, partially purified, catalytically active human PDE 4C2 expressed in *S. frugiperda* insect cells. *Activity: ≥0.5 units/ml.*	524737	10 U	$234
Phosphodiesterase 4D3, Active, Human, Recombinant, *S. frugiperda*	A full-length, partially purified, catalytically active human PDE 4D3 expressed in *S. frugiperda* insect cells. Activity: ≥0.5 units/ml.	524733	10 U	$234

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Product	Application	Cat. No.	Size	Price
Phosphodiesterase 5, Catalytic Domain, Human, Recombinant, *S. frugiperda*	A full-length, partially purified, catalytically active human PDE 5 expressed in *S. frugiperda* insect cells. *Activity: ≥0.5 units/ml.*	524738	10 U	$234
Phosphodiesterase 11A1, Active, Human, Recombinant, *S. frugiperda*	A full-length, partially purified, catalytically active human PDE11A1 expressed in *S. frugiperda* insect cells. Activity: ≥0.5 units/ml.	524735	10 U	$234

Proteases and Related Products

Kits

InnoZyme™ Calpain1/2 Activity Assay Kit	A highly sensitive and specific assay for measuring calpain 1 and 2 activity in biological samples like cell lysate or tissue extracts and for screening enzyme inhibitors. *Assay range: 63-1000 ng/ml.*	CBA054	1 kit	$364
InnoZyme™ Cathepsin S Activity Assay Kit	A specific and sensitive assay for measuring active human cathepsin S in cell lysates and tissue extracts and to screen enzyme inhibitors. *Assay range: 1-40 ng/ml.*	CBA050	1 kit	$442
InnoZyme™ TACE Activity Kit	The InnoZyme™ TACE Activity Kit is a specific and sensitive assay designed to measure human TACE activity in cell lysates and biological samples and for screening enzyme inhibitors. Assay range: 5-100 ng/ml as measured with purified recombinant human TACE.	CBA042	1 kit	$442

Antibodies

Anti-ESPL1/Separase Rabbit pAb	Recognizes the ~220 kDa ESPL1/separase protein in HepG2 cells. **IB, IP**	ST1118	50 µg	$145
Anti-IDE/Insulysin Rabbit pAb	Recognizes the ~110 kDa IDE (insulin degrading enzyme) protein in HT1080 cells. **IB, IP**	ST1120	50 µg	$145
Anti-Spi2A (278-294; 406-423) Rabbit pAb	Recognizes the ~53 kDa Spi2A protein in mouse embryonic fibroblasts transfected with the Spi2A gene. **IB**	AP1022	50 µg	$170

Protease Inhibitors

Anthrax Lethal Factor Protease Inhibitor III	A cell-permeable and potent inhibitor of anthrax lethal factor (LF) metalloproteinase (K_i = 32 nM).	176910	5 mg	$134
Aprotinin, Bovine, Recombinant, *Nicotiana sp.*, Animal-Free	Recombinant, bovine aprotinin produced without animal-derived components.	616371	1 mg 5 mg 25 mg	$54 $75 $150
PPACK II, Trifluoroacetate Salt	A potent and irreversible inhibitor of plasma and glandular kallikreins.	520219	10 mg	$172
Protease Inhibitor Cocktail Set I, Animal-Free	A cocktail of five protease inhibitors for the inhibition of a broad range of proteases and esterases. Each vial, when reconstituted with 1 ml H_2O, yields a 100X stock solution. When diluted to 1X the cocktail contains 500 µM AEBSF, HCl (Cat. No. 101500), 150 nM Aprotinin (Cat. No. 616371), 1 µM E-64 (Cat. No. 324890), 0.5 mM EDTA, Disodium Salt and 1 µM Leupeptin Hemisulfate (Cat. No. 108975). Available as 1 ml or as a set of 10 x 1 ml.	535142	1 ml 1 set	$29 $210
Protease Inhibitor Cocktail Set III, Animal-Free	A cocktail of six protease inhibitors with broad specificity for the inhibition of aspartic, cysteine, and serine proteases as well as aminopeptidases. This cocktail is recommended for use with mammalian cell and tissue extracts. Each vial contains 100 mM AEBSF, HCl (Cat. No. 101500), 80 µM Aprotinin (Cat. No. 616371), 5 mM Bestatin (Cat. No. 200484), 1.5 mM E-64 (Cat. No. 324890), 2 mM Leupeptin Hemisulfate (Cat. No. 108975) and 1 mM Pepstatin A (Cat. No. 516482). Available as 1 ml vial or a set of 5 x 1 ml.	535140	1 ml 1 set	$59 $255
Protease Inhibitor Cocktail Set V, Animal-Free	A cocktail of four protease inhibitors for the inhibition of serine and cysteine proteases, but not metalloproteases. Each vial, when reconstituted with 1 ml H_2O, will yield a 100X stock solution. When diluted to 1X the cocktail contains 500 µM AEBSF, HCl (Cat. No. 101500), 150 nM Aprotinin (Cat. No. 616371), 1 µM E-64 (Cat. No. 24890), and 1 µM Leupeptin Hemisulfate (Cat. No. 108975). Available as 1 ml or as 1 set of 10 x 1 ml.	535141	1 ml 1 set	$59 $211
Serpin F2/α_2-Antiplasmin, His•Tag®, Human, Recombinant, NS0 Cells	Full-length, recombinant human serpin F2 (amino acids 1-491) expressed in NS0 mouse myeloma cells with a C-terminal 10X His•Tag® sequence. *Biological activity: Inhibition of plasmin cleavage: IC_{50} < 13 nM). Purity: ≥95% by SDS-PAGE.*	539664	10 µg	$337

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Product	Application	Cat. No.	Size	Price
Substrates				
Calpain-1 Substrate II, Fluorogenic	An internally quenched peptide substrate that is optimized for calpain-1 amino acid recognition motifs at the primed as well as the non-primed sides. Shown to be kinetically superior, in terms of turnover rate, to Calpain Substrate III, Fluorogenic (Cat. No. 208771), Calpain-1 Substrate, Fluorogenic (Cat. No. 208748), and Calpain Substrate II, Fluorogenic (Cat. No. 208731) by ~8-, 18-, and 310-fold, respectively.	208772	1 mg	$187
Cathepsin B Substrate V, Fluorogenic	An internally-quenched fluorogenic peptide substrate that is selectively and efficiently cleaved by human cathepsin B (k_{cat}/K_m in $M^{-1}s^{-1}$ at pH 4.5 = 7288, 133.3, 100, 75, 50, 32 and 17 for cathepsin B, cathepsin K, cathepsin L, cruzain, CPB 2.8 δCTE, cathepsin V, and cathepsin X, respectively).	219480	5 mg	$246
Cathepsin L Substrate I, Fluorogenic	A tetrapeptidyl fluorogenic substrate for human cathepsin L (kcat = 20.8 sec^{1}, Km = 11.2 µM, and k_{cat}/K_m = 1.9 x 10^6 M^{-1} sec^{-1}). Displays ~270-fold and ~2,500-fold greater selectivities, respectively, over cathepsin B (k_{cat}/K_m = 7.0 x 10^3 M^{-1} sec^{-1}) and cathepsin K (k_{cat}/K_m = 7.6 x 10^2 M^{-1} sec^{-1}).	219497	2 mg	$135
Proteases				
Aminopeptidase N (CD13), Human Serum	Native aminopeptidase N purified from human serum. *Specific activity:≥450 mU/mg protein. Purity: ≥92% by SDS-PAGE.*	164605	10 µg	$218
Procathepsin K, Human, Recombinant, *E. coli*	Recombinant human procathepsin K (amino acids 19-329) (GenBank target symbol = S79895, ACC No. P43235) expressed in *E. coli* with a methionine residue inserted at amino acid 18 to create a new N-terminal initiation site. *Activity:≥1000 mU/mg protein. Purity:≥95% by SDS-PAGE.*	342001	10 µg	$252
Dipeptidyl Peptidase IV (CD26), Porcine Kidney	Native, dipeptidylpeptidase IV (CD26) purified from porcine kidney (renal brush border of the proximal tubule). *Specific activity:≥35 units/mg protein. Purity:≥90% by SDS-PAGE.*	317640	25 mU	$210
Endopeptidase Lys-C, *Achromobacter lyticus*	A serine protease secreted by soil bacteria and specifically hydrolyzes amide and peptide ester bonds at the carboxylic side of lysine and S-aminoethylcysteine residues. *Specific activity:≥2 AU/mg protein.*	324796	2 U	$156
HCV NS3/4A Protease, Recombinant, *E. coli*	Recombinant, human hepatitis c Virus (HCV) protease expressed in *E. coli* and purified by affinity chromatography using FPLC. *Biological activity: 20-200 ng is sufficient for an in vitro protease assay. Purity:≥ 95% by SDS-PAGE.*	444147	10000 U	$359
HtrA2/Omi, Human, Recombinant, *E. coli*	Recombinant human HtrA2/Omi consisting of amino acids 134-458 expressed in *E. coli* with a 6X C-terminal His•Tag® sequence. Purity: ≥85% by SDS-PAGE.	539663	100 µg	$337
Plasmin, Human, Recombinant	Recombinant, human plasmin expressed in yeast as plasminogen and activated by urokinase treatment. *Specific activity:≥ 20 units/mg protein. Purity:≥95% by SDS-PAGE.*	527622	1 mg	$463
Prolyl Endopeptidase, *Myxococcus xanthus*, Recombinant, *E. coli*	A member of the serine protease family. *Specific activity:≥15 units/mg protein. Purity:≥95% by SDS-PAGE.*	545127	50 U	$400
Proteinase K, *Tritirachium album*	Serine protease that exhibits strong proteolytic activity on a wide variety of denatured and native proteins of high molecular weight. *Specific activity:≥40 units/mg protein.*	539480	25 mg 100 mg	$25 $62
Renin, Human Kidney	Prepared by acidification and clarified by centrifugation, precipitation by ammonium sulfate and dialysis, absorption onto affinity agarose matrix and high salt elution, and concentration via stirred cell and gel filtration column. *Purity:≥ 90% (NuPAGE gel).*	553901	150 mU	$252
Renin, Human Recombinant	Recombinant human renin expressed in HEK cells as pro-renin that is subsequently activated using trypsin and purified by peptide affinity chromatography. *Purity:≥99% by SDS-PAGE.*	553900	5 µg 10 µg	$102 $166
West Nile Virus NS3 Protease, Recombinant, *E. coli*	Recombinant, human West Nile virus proteinase (WNV NS2B-NS3pro) expressed in *E. coli* as a fusion protein with the cofactor, NS2B, and a C-terminal His•Tag® sequence. *Specific activity:≥1 µmol/min/mg protein. Purity:≥95% by SDS-PAGE.*	444148	25 µg	$307

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Product	Application	Cat. No.	Size	Price
Protein Sample Preparation Tools				
ProteoExtract® Formalin Fixed Tissue Kit	The kit is designed for extracting full-length, soluble proteins directly from formalin fixed and paraffin embedded (FFPE) tissue. *Form: 10-60 extractions, sample dependent.*	539721	1 kit	$328
ProteoExtract® Subcellular Proteome Extraction Kit, Mini	A tool for the differential extraction of proteins from mammalian cells according to their subcellular localization. *Form: 10 Extractions.*	539791	1 kit	$185
ProteoExtract® Tissue Dissociaton Buffer Kit	The ProteoExtract® Tissue Dissociation Buffer Kit is a tool for isolation of viable cells from fresh tissue.	539720	1 kit	$80
ProteoExtract® Tryptic Cleavage Modification Kit	An innovative kit utilizing specific chemical modifications to control the trypsin cleavage site for in-gel digestions. In combination with the ProteoExtract® All-in-One Trypsin Digestion kit (Cat. No. 650212) the resulting sample contains either Arg C-like or Lys C-like digested peptide fragments for further analysis like mass spectrometry.	539182	1 kit	$139
Proteasome/Ubiquitination Products				
Methylated Ubiquitin, Human, Recombinant	A derivative of ubiquitin in which lysine residues are reductively methylated. *Purity:≥95% by SDS-PAGE.*	662065	1 mg	$99
Smurf2 Ligating Enzyme, Human, Recombinant, *S. frugiperda*	Recombinant, human Smad ubiquitination regulatory factor 2 (Smurf2) expressed and purified from *S. frugiperda* insect cells. *Purity:≥98% by SDS-PAGE.*	662079	10 µg	$442
UbcH8 Conjugating Enzyme, Human, Recombinant, *S. frugiperda*	Recombinant, human, UbcH8 conjugating enzyme fused to GST and expressed and purified from *S. frugiperda* insect cells. *Purity:≥95% by SDS-PAGE.*	662082	100 µg	$255
UbcH9 Conjugating Enzyme, Human, Recombinant, *S . frugiperda*	Recombinant, human UbcH9 conjugating enzyme expressed in and purified from *S. frugiperda* insect cells. *Purity:≥98% by SDS-PAGE.*	662083	100 µg	$255
Inhibitors				
Proteasome Inhibitor VII, Antiprotealide	A cell-permeable, Omuralide-Salinosporamide hybrid that irreversibly inactivates the β5-subunit of the human 20S proteasome. Shown to be ~2.5-fold more potent than Omuralide (Cat. No. 426102) and is expected to exhibit comparable whole cell potency as Salinosporamide A.	539179	50 µg	$187
Proteasome Inhibitor VIII, β-Lactam 3	A β-lactam analog of Proteasome Inhibitor VII, Antiprotealide (Cat. No. 539179) that acts as a selective and irreversible inhibitor of the 20S proteasome.	539183	100 µg	$252
Proteasome Inhibitor IX, AM114	A cell-permeable boronate chalcone compound that displays ~ 30-fold higher potency than MG-132 (Cat. No. 474790) in inhibiting 20S proteasome chymotrypsin-like activity (IC_{50} ~ 1 µM).	539184	10 mg	$125
Ubiquitin Isopeptidase Inhibitor I, G5	A cell-permeable selective inhibitor of ubiquitin isopeptidase activity (IC_{50} = 30 µM).	662125	10 mg	$120
Ubiquitin Isopeptidase Inhibitor II, F6	A cell-permeable selective inhibitor of ubiquitin isopeptidase activity (IC_{50} = 70 µm).	662126	10 mg	$109
Protein/Lipid Kinases and Related Products				
Kits				
TruLight™ Akt1/PKBα Kinase Assay Kit	A sensitive and high speed homogeneous assay for detection of enzyme activity and for screening of Akt1/PKBα (Protein Kinase B α) inhibitors in a high-throughput screening (HTS) format. *Format: 96-well plate; Sensitivity: 25 pM.*	539705*	1 kit	$515
TruLight™ Aurora A Kinase Assay Kit	A sensitive and high speed homogeneous assay for detection of enzyme activity and for screening of Aurora A inhibitors in a high-throughput screening (HTS) format.	539716*	1 kit	$515
CREB ELISA Kit	Detects and quantifies the level of CREB (cAMP-Response Element-Binding protein) independent of its phosphorylation state in human and mouse cells. *Assay range: 0.156-10 ng/ml.*	CBA071	1 kit	$575

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Product	Application	Cat. No.	Size	Price
c-Kit ELISA Kit	Detects and quantifies the level of c-Kit protein independent of its phosphorylation state in human cells. *Assay range: 19.5 - 1250 pg/ml.*	CBA074	1 kit	$575
PhosphoDetect™ c-Kit (pTyr^{823}) ELISA Kit	Detects and quantifies the level of c-Kit protein that is phosphorylated at Tyr^{823} in human cells. *Assay range: 1.6 - 100 Units/ml.*	CBA075	1 kit	$575
c-Met ELISA Kit	Detects and quantifies the levels of c-Met protein independent of its phosphorylation state. *Assay range: 0.78-50 ng/ml.*	CBA031	1 kit	$575
PhosphoDetect™ c-Met (pTyr$^{1230/1234/1235}$) ELISA Kit	Detects and quantifies the level of c-Met phosphorylated at Tyr$^{1230/1234/1235}$. *Assay range: 1.56-100 Units/ml.*	CBA073	1 kit	$575
IP-Activity™ Bcr-Abl/c-Abl Kit	A tool to immunoprecipitate the Abl tyrosine kinase from a variety of samples including cell lysates and partially purified preparations.	CBA052	1 kit	$161
ERK 1/2 ELISA Kit	Detects and quantifies the level of ERK 1/2 proteins independent of their phosphorylation state. *Assay range: 31.2-2000 pg/ml.*	CBA032	1 kit	$575
TruLight™ ERK1/2 Assay Kit	A sensitive and high speed homogeneous assay for detection of enzyme activity and for screening of ERK1 inhibitors in a high-throughput screening (HTS) format.	539715*	1 kit	$515
PhosphoDetect™ FAK (pTyr^{397}) ELISA Kit	Detects and quantifies the level of FAK (Focal Adhesion Kinase) phosphorylated at Tyr^{397}. *Assay range: 1.6-100 Units/ml.*	CBA062	1 kit	$575
FAK ELISA Kit	Detects and quantifies the level of FAK (focal adhesion kinase) protein independent of its phosphorylation state in human, mouse and rat cells. *Assay range: 1.6-100 ng/ml.*	CBA063	1 kit	$575
GSK-3β ELISA Kit	Detects and quantifies the level of GSK-3β (glycogen synthase kinase-3 β) protein independent of its phosphorylation state in human, mouse and rat cells. *Assay range: 0.39-25 ng/ml.*	CBA068	1 kit	$575
PhosphoDetect™ GSK-3β (pSer^{9}) ELISA Kit	Detects and quantifies the level of GSK-3β (glycogen synthase kinase-3β) phosphorylated at Ser^{9} in human, mouse, and rat cells. *Assay range: 1.6-100 U/ml.*	CBA069	1 kit	$575
PhosphoDetect™ IκBα (pSer^{32}) ELISA Kit	Detects and quantifies the level of IkBa protein phosphorylated at Ser^{32} in human cells. *Assay range: 1.6-100 Units/ml.*	CBA065	1 kit	$575
Insulin Receptor (β-subunit) ELISA Kit	Detects and quantifies the levels of insulin receptor (IR) β-subunit independent of its phosphorylation status. *Assay range: 0.94-60 ng/ml.*	CBA039	1 kit	$575
PhosphoDetect™ Insulin Receptor (pTyr$^{1162/1163}$) ELISA Kit	Detects and quantifies the levels of insulin receptor (IR) that are phosphorylated at Tyr$^{1162/1163}$. *Format: 96-well plate. Assay range: 1.6-100 Units/ml. Sensitivity: < 0.8 Units/ml.*	CBA038	1 kit	$575
IP-Activity™ Src Kit	A tool to immunoprecipitate c-Src and v-Src tyrosine kinase from a variety of sources, including cell lysates and partially-purified preparations.	CBA056	1 kit	$161
JNK 1/2 ELISA Kit	Detects and quantifies the level of JNK1 and JNK2 proteins independent of their phosphorylation state. *Assay range: 0.31-20 ng/ml.*	CBA033	1 kit	$575
K-LISA™ mTOR Activity Kit	Activity assay for measuring the kinase activity of purified or mTOR immunoprecipitated from cell lysates. This assay utilizes a p70S6K GST fusion protein as a specific mTOR substrate.	CBA055*	1 kit	$475
TruLight™ p38α Kinase Assay Kit	A sensitive and high speed homogeneous assay for the detection of enzyme activity and for screening of p38α inhibitors in a high-throughput screening (HTS) format.	539710†	1 kit	$515
TruLight™ p70S6 Kinase Assay Kit	A sensitive and high speed homogeneous assay for the detection of enzyme activity and for screening of p70S6 kinase inhibitors in a high-throughput screening (HTS) format. *Format: 96-well plate; Sensitivity: 800 pM.*	539711†	1 kit	$515
TruLight™ Phosphoinositide 3-Kinase Assay Kit	A sensitive and high speed homogeneous assay for the detection of enzyme activity and for screening of Phosphoinositide 3-Kinase (PI3K) inhibitors in a high-throughput screening (HTS) format. *Format: 384-well plate.*	539718†	1 kit	$970
TruLight™ PKA Assay Kit	A sensitive and high speed homogeneous assay for the detection of enzyme activity and for screening of Protein Kinase A (PKA) inhibitors in a high-throughput screening (HTS) format. *Format: 96-well plate; Sensitivity: 1.2 pM.*	539712†	1 kit	$515

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* Sold under exclusive license of allowed U.S. patent application 20040191836.
† Sold under license of U.S. patents 6,589,731 and 6,743,640.

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Product	Application	Cat. No.	Size	Price
TruLight™ PKC_{α} Assay Kit	A sensitive and high speed homogeneous assay for the detection of enzyme activity and for screening of PKC_{α} (Protein Kinase C_{α}) inhibitors in a high-throughput screening (HTS) format. *Format: 96-well plate; Sensitivity: 2.5 pM.*	539707†	1 kit	$515
TruLight™ $PKC_{\beta I/II}$ Assay Kit	A sensitive and high speed homogeneous assay for the detection of enzyme activity and for screening of $PKC_{\beta I/II}$ inhibitors in a high-throughput screening (HTS) format. *Format: 96-well plate; Sensitivity: PKCbI, 4.2 pM; $PKC_{\beta II}$, 2.2 pM.*	539713†	1 kit	$515
TruLight™ PKC_{ε} Assay Kit	A sensitive and high speed homogeneous assay for the detection of enzyme activity and for screening of PKCe (Protein Kinase C epsilon) inhibitors in a high-throughput screening (HTS) format. *Format: 96-well plate; plateSensitivity: 7.6 pM.*	539708†	1 kit	$515
TruLight™ Protein Substrate Kinase Assay Kit	A sensitive and high speed homogeneous assay for the detection of enzyme activity and for screening of protein kinase inhibitors in a high-throughput screening (HTS) format using whole proteins as substrates. *Format: 96-well plate.*	539719†	1 kit	$515
K-LISA™ PTK E_4Y Reaction Plate	The K-LISA PTK E4Y Reaction Plate intended for use as a substrate/reaction plate for assaying protein tyrosine kinase (PTK) activity.	539702	1 each	$134
K-LISA™ PTK EAY Reaction Plate	The K-LISA PTK EAY Reaction Plate is intended for use as a substrate/reaction plate for assaying protein tyrosine kinase (PTK) activity.	539703	1 each	$134
K-LISA™ PTK EY Reaction Plate	The K-LISA PTK EY Reaction Plate is intended for use as a substrate/reaction plate for assaying protein tyrosine kinase (PTK) activity.	539704	1 each	$134
MEK1 ELISA Kit	Detects and quantifies the level of MEK1 protein independent of its phosphorylation state. *Assay range: 0.16-10 ng/ml.*	CBA070	1 kit	$575
PhosphoDetect™ MEK1 ($pSer^{218/222}$) ELISA Kit	Detects and quantifies the level of MEK1 protein that is dually phosphorylated at Ser^{218} and Ser^{222}. Format: 96-well plate. *Sensitivity: ≤ 0.9 Units/ml. Assay range: 1.6-100 units/ml.*	CBA030	1 kit	$575
PhosphoDetect™ PRAS40 ($pThr^{246}$) ELISA Kit	Detects and quantifies the level of PRAS40 (Proline-Rich AKT Substrate of 40 kDa) protein that is phosphorylated at Thr^{246} in mouse, human, and rat samples. *Format: 96-well plate; Sensitivity: < 0.5 units/ml; Assay range: 1.6-100 Units/ml.*	CBA067	1 kit	$575
TruLight™ RSK-2 Assay Kit	A sensitive and high speed homogeneous assay for the detection of enzyme activity and for screening of RSK-2 inhibitors in a high-throughput screening (HTS) format. *Format: 96-well plate; Sensitivity: 75 pM.*	539709†	1 kit	$515
PhosphoDetect™ Src ($pTyr^{418}$) ELISA Kit	Detects and quantifies the level of c-Src protein that is phosphorylated at Tyr^{418}. *Format: 96-well plate; Sensitivity: ≤ 1 Unit/ml; Assay range: 1.6-100 Units/ml.*	CBA028	1 kit	$575
TruLight™ Src Kinase Assay Kit	A sensitive and high speed homogeneous assay for the detection of enzyme activity and for screening of Src inhibitors in a high-throughput screening (HTS) format. *Sensitivity: 31.6 pM.*	539706†	1 kit	$515
TruLight™ Universal Kinase/ Phosphatase Assay Kit	A sensitive and high speed homogeneous assay for the detection of kinase or phosphatase activity and for screening of inhibitors in a high-throughput screening (HTS) format. *Format: 96- or 384-well plate.*	539714†	1 kit	$975
Antibodies				
PhosphoDetect™ Anti-c-Abl ($pThr^{735}$) Rabbit pAb	Recognizes the ~145 kDa c-Abl and the ~190 kDa and ~210 kDa forms of Bcr-Abl phosphorylated at Thr^{735} in sorbitol-treated HeLa cells. **IB**	PK1006	50 µl	$209
PhosphoDetect™ Anti-c-Abl ($pTyr^{245}$) Rabbit pAb	Recognizes the ~135 kDa c-Abl protein phosphorylated at Tyr^{245} in HEK293 cells over-expressing constitutively active c-Abl. **IB**	PK1013	50 µl	$209
PhosphoDetect™ Anti-c-Kit ($pTyr^{719}$) Rabbit pAb	Recognizes the ~145 kDa c-Kit protein phosphorylated at Tyr^{719} in stem cell factor-treated MO7e cells. **IB, IP, PS**	PK1011	50 µl	$209
Anti-Chk2 Rabbit pAb	Recognizes the ~62 kDa Chk2 protein in HeLa cells. **IB, IP**	DR1036	50 µl	$145
Anti-JAK1 Rabbit pAb	Recognizes the ~130 kDa JAK1 protein in CTLL-2 and BaF3 cells. **IB, IP, PS**	PK1004	50 µl	$145
Anti-Lck Rabbit pAb	Recognizes the ~56 kDa Lck protein in calf intestinal alkaline phosphatase (CIP) or H_2O_2-treated Jurkat cells. **FC, IB, IP**	PK1105	50 µl	$145
Anti-LKB1 (120-160) Rabbit pAb	Recognizes the ~47 kDa LKB1 protein in the HepGZ cells, an evolutionarily conserved serine/threonine kinase that may function as a tumor suppressor. **IB**	ST1092	50 µg	$139
Anti-Lyn Rabbit pAb	Recognizes the ~56 kDa form of Lyn in anti-IgM-treated Ramos cells. Does not recognize the ~53 kDa isoform of Lyn. **IB, IP, PS**	ST1107	50 µl	$145

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Product	Application	Cat. No.	Size	Price
Anti-mTOR/FRAP (Ab-2) Mouse mAb (22C2)	Recognizes the ~290 kDa mTOR protein in HEK293 cells. **IB, IP**	OP97	100 µg	$249
Anti-PAK5 Rabbit pAb	Recognizes the ~85 kDa PAK5 protein in transfected CHO cells. **IB, IC**	ST1097	50 µg	$145
Anti-PAK6 Rabbit pAb	Recognizes the ~80 kDa PAK6 protein in transiently transfected CHO cells. **IB, IP**	ST1108	50 µg	$145
Anti-PDK1 (1-556) Rabbit pAb	Recognizes the ~60 kDa PDK1 protein in HEK293 cells. Also recognizes ~400 kDa and ~17 kDa unidentified proteins. **IB**	ST1115	50 µl	$145
Anti-Pim1 Rabbit pAb	Recognizes the ~33 kDa Pim1 protein in K562 cells. **IB, IP**	ST1091	50 µg	$145
Anti-PKC (α, β, γ) Mouse mAb (M110)	Recognizes the ~80-82 kDa α,β, γ isoforms of PKC in neonatal rat brain. **ELISA, IB, IC, IP**	PK1014	50 µl	$203
Anti-PKD3 Rabbit pAb	Recognizes the ~100 kDa PKD3 protein in HEK293 cells. **IB**	ST1090	50 µg	$145
Anti-Plk1 Mouse mAb (35-206)	Recognizes the ~62 kDa Plk1 protein in HeLa cells. **IB, IP**	DR1037	50 µg	$145
PhosphoDetect™ Anti-Glycogen Synthase Kinase-3β, (pSer^{9}) Rabbit pAb	Recognizes the ~47 kDa glycogen synthase kinase-3β (GSK-3β) protein phosphorylated on Ser^{9} in insulin or IGF-1 treated, serum-starved 3T3-L1 cells. **IB**	PS1018	10 T	$307
PhosphoDetect™ Anti-JNK1&2 (pThr^{183}/Tyr^{185}) Rabbit pAb	Recognizes the ~49 kDa JNK1 and the ~55 kDa JNK2 phosphorylated on Thr^{183} and Tyr^{185}. **IB**	PS1019	100 µl	$307
PhosphoDetect™ Anti-MAPKAPK-2 (pThr^{222}) Rabbit pAb	Recognizes the ~47 kDa MAP kinase-activated protein kinase 2 (MAPKAPK-2) protein phosphorylated at Thr^{222} in anisomycin-treated HeLa cells. **IB**	PK1007	50 µl	$209
PhosphoDetect™ Anti-mTOR (pSer^{2448}) Rabbit pAb	Recognizes ~290 kDa mTOR protein phosphorylated on Ser^{2448} in EGF-treated HEK293 cells. **IB**	PS1020	50 µg	$209
PhosphoDetect™ Anti-p70S6K(pThr^{389}) Rabbit pAb	Recognizes the ~60 kDa p70S6 kinase protein phosphorylated on Tyr^{389} in MCF7 cells. **ELISA, IB**	PK1015	50 µg	$209
PhosphoDetect™ Anti-PDGF Receptor-β(pTyr^{751}) Rabbit pAb	Recognizes the ~190 kDa PDGF receptor-β protein phosphorylated at Tyr^{751} in PDGF-stimulated L6, HepG2, and NIH3T3 cells. **FC, IB, IP, PS**	PK1008	50 µl	$209
Anti-SLK Rabbit pAb	Recognizes the ~145 kDa human SLK (Ste20-like kinase) protein in HeLa cells. **IB, IP**	AP1039	50 µg	$145
Anti-STK10 Rabbit pAb	Recognizes the ~130 kDa STK10 (Serine/Threonine kinase 10) protein in HeLa cells. **IB, IH**	ST1093	50 µg	$145
PhosphoDetect™ Anti-Src Family (pTyr^{416}) Rabbit pAb	Recognizes the ~60 kDa Src protein phosphorylated at Tyr^{416} in COLO 201 cells and PDGF-treated NIH/3T3 cells. May also recognize other Src family kinases phosphorylated at equivalent sites. **FC, FFS, IB, IC, PS**	PK1109	50 µl	$209
PhosphoDetect™ Anti-Syk (pTyr$^{525/526}$) Rabbit pAb	Recognizes the ~72 kDa Syk protein phosphorylated at Tyr$^{525/526}$ in human Syk or Tyr$^{519/520}$ in mouse Syk in 293T cells expressing wild-type Syk and CD8. **ELISA, IB**	PK1010	50 µl	$209
Activators				
AICA-Riboside, 5′-Phosphate	A 5′-phosphorylated analog of membrane permeable AICA-Riboside (Cat. No.123040) that mimics AMP and acts as an activator of AMPK (AMP-activated protein kinase).	123041	25 mg	$150
AMPK Activator	A cell-permeable, indirect activator of AMPK (AMP-activated protein kinase). Targets mitochondrial complex I, lowers extracellular ATP levels and causes an elevation in cellular AMP levels.	171256	5 mg	$145
Inhibitors				
Adenosine Kinase Inhibitor	A cell-permeable, potent, adenosine-competitive, and reversible adenosine kinase (AK) inhibitor (IC_{50} = 50.7 nM using intact IMR-32 cells and 1.7 nM in cell-free assays using rat brain cytosolic AK).	116890	5 mg	$192
AG 490, *m*-CF_3	A cell-permeable, m-trifluoromethyl derivative of AG 490 (Cat. No. 658401) that displays apoptotic and antiproliferative properties (IC_{50} = 1.7 µM, 2.8 µM and 6.1 µM in 2E8, Baf/3 and Jurkat cells, respectively).	658408	10 mg	$92
InSolution™ Akt Inhibitor VIII, Isozyme-Selective, Akti-1/2	A 10 mM (1 mg/181 µl) solution of Akt Inhibitor VIII, Isozyme-Selective, Akti-1/2 (Cat. No. 124018) in DMSO.	124017	1 mg	$139
Akt Inhibitor VIII, Isozyme-Selective, Akti-1/2	A cell-permeable, potent and selective inhibitor of Akt1/Akt2 activity (IC_{50} = 58 nM, 210 nM, and 2.12 µM for Akt1, Akt2, and Akt3, respectively, in *in vitro* kinase assays).	124018	1 mg	$139

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Product	Application	Cat. No.	Size	Price
Akt Inhibitor IX, API-59CJ-OMe	A cell-permeable, potent, and selective Akt inhibitor that induces apoptosis in human endometrial cancer cells (RL95-2 and Ishikawa) that exhibit elevated Akt activity (effective concentration = 12-24 µM). Does not affect cells with low Akt activity.	124019	5 mg	$192
Akt Inhibitor X	A cell-permeable, selective inhibitor of the phosphorylation of Akt and its *in vitro* kinase activity (complete inhibition < 5 µM) with minimal effect on PI 3-K, PDK1, or SGK1.	124020	5 mg	$209
Akt Inhibitor XI	A cell-permeable copper complex that inhibits tumor growth both in cultured cells *in vitro* (IC_{50} ranges from 10 to 34 µM) and in mice *in vivo* (25 mg/kg, iv) without any apparent adverse effect to the animals.	124028	5 mg	$187
Alsterpaullone, 2-Cyanoethyl	A highly potent, selective and ATP-competitive inhibitor of Cdk1/cyclin B and GSK-3β (IC_{50} = 230 pM and 800 pM, respectively; [ATP] = 15 µM).	126871	1 mg	$145
AMPK Inhibitor, Compound C	A cell-permeable, potent, selective, reversible, and ATP-competitive inhibitor of AMPK (AMP-activated protein kinase; K_i = 109 nM in the presence of 5 µM ATP and the absence of AMP).	171260	1 mg 5 mg	$75 $252
InSolution™ AMPK Inhibitor, Compound C	A 10 mM (1 mg/250 µl) solution of AMPK Inhibitor, Compound C (Cat. No. 171260) in DMSO.	171261	1 mg	$75
ATM Kinase Inhibitor	A cell-permeable, potent, and ATP-competitive inhibitor of ATM kinase (IC_{50} = 13 nM; K_i = 2.2 nM).	118500	2 mg	$94
ATM/ATR Kinase Inhibitor	A cell-permeable compound that selectively inhibits the kinase activity of ATM and ATR (IC_{50} ~ 200 nM).	118501	5 mg	$175
Aurothiomalate	Inhibits the activity of IKK (ID_{50} = 10.9 µM) and disrupts PB1 (Phox and Bem1p) domain-mediated interactions between Par6 and PKCi (IC_{50} ~ 1 µM) by modifying cysteine residues within the catalytic domain of IKK and the PB1 domain of PKCi.	189401	50 mg	$88
Aurora Kinase Inhibitor II	A cell-permeable, potent, selective, and ATP-competitive inhibitor of aurora kinases (IC_{50} = 310 nM and 240 nM for Aurora A and B, respectively, 1.25 µM in MCF7 cells).	189404	1 mg	$92
Aurora Kinase Inhibitor III	A cell-permeable, ATP-competitive, and potent, but non-selective inhibitor of Aurora A (IC_{50} = 42 nM). At higher concentrations, also inhibits the activities of other kinases, such as Lck, Bmx, IGF-1R, and Syk (IC_{50} = 131, 386, 591, and 887 nM, respectively).	189405	1 mg	$88
Aurora Kinase/Cdk Inhibitor	A cell-permeable, reversible, and ATP-competitive kinase inhibitor with selectivities towards aurora kinases (IC_{50} = 11 and 15 nM for aurora-A, aurora-B, respectively) and Cdk's (IC_{50} = 9, 4, and 3 nM for Cdk1/B, Cdk2/A, and Cdk2/E, respectively).	189406	5 mg	$225
Bcr-abl Inhibitor	A cell-permeable, potent and selective antiproliferative activity toward Bcr-abl-expressing cells (IC_{50} = 138 nM, 194 nM, 268 nM and 273 nM in Ba/F3.p210, Ba/F3.$p^{185Y253H}$, SUP-B15 and Ba/F3.$p^{210E255V}$, and K562, respectively).	197221	5 mg	$135
InSolution™ Casein Kinase I Inhibitor, D4476	Supplied as a 10 mM (1 mg/251 µl) solution of Casein Kinase I Inhibitor, D4476 (Cat. No. 218696) in DMSO.	218705	1 mg	$126
InSolution™ Casein Kinase II Inhibitor, DMAT	Supplied as a 10 mM (5 mg/1.05 ml) solution of Casein Kinase II Inhibitor, DMAT (Cat. No. 218699) in DMSO.	218706	5 mg	$94
Cdk/Crk Inhibitor	A cell-permeable, potent, selective, and ATP-competitive inhibitor of Cdks (IC_{50} = 48 nM, 15 nM, 9 nM, 10 nM, 71 nM, and 9 nM for Cdk1/B, Cdk2/E, Cdk3/E, Cdk5/p35, Cdk7/H/MAT1, and Cdk9, respectively).	219491	1 mg	$130
Cdk1/2 Inhibitor III	A cell-permeable, highly potent, and ATP-competitive inhibitor of Cdk1/cyclin B and Cdk2/cyclin A (IC_{50} = 600 pM and 500 pM, respectively).	217714	1 mg	$92
Cdk2 Inhibitor IV, NU6140	A highly cell-permeable purine compound that displays anticancer properties and acts as a selective and ATP-competitive inhibitor of Cdks.	238804	5 mg	$145
Cdk2/9 Inhibitor	A cell-permeable, potent and ATP-competitive inhibitor of Cdk2/E and Cdk9/T1 (K_i = 2 nM and 4 nM, respectively).	238806	5 mg	$177
Cdk4 Inhibitor II, NSC 625987	A potent substrate-competitive inhibitor of Cdk4/cyclin D1 (IC_{50} = 200 nM).	219477	5 mg	$123
Cdk4 Inhibitor III	A cell-permeable selective Cdk4 inhibitor (IC_{50} = 6.0 µM for Cdk4/D1 and > 200 µM for Cdk2/A).	219478	5 mg	$130
Chk2 Inhibitor	A cell-permeable and a potent inhibitor of Chk2 (IC_{50} = 8 nM) that targets the ATP binding pocket.	220485	500 µg	$204
Chk2 Inhibitor II	A cell-permeable benzimidazolo compound that acts as a potent and ATP-competitive inhibitor of Chk2 with an IC_{50} of 15 nM and a K_i of 37 nM.	220486	1 mg	$97
EGFR Inhibitor	A cell-permeable, potent, ATP-competitive, and highly selective inhibitor of EGFR tyrosine kinase and some EGFR mutants (IC_{50} = 21 nM, 63 nM, and 4 nM for EGFRwt, $EGFR^{L858R}$ and $EGFR^{L861Q}$, respectively) vs. erbB4/Her4 (IC_{50} = 7.64 µM) and a panel of 55 other kinases.	324674	1 mg	$88

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Product	Application	Cat. No.	Size	Price
EGFR Inhibitor II, BIBX1382	A cell-permeable, potent, reversible, ATP-competitive, and highly selective inhibitor of EGFR tyrosine kinase (ErbB-1, HER-1) both in cell-free enzymatic reactions (IC_{50} = 3 nM) and in culture (IC_{50} = 0.15, 1.82, and 3.2 µM in EGF-, HGF-, and FCS-dependent thymidine incorporation, respectively, in KB cells).	324832	5 mg	$175
EGFR/ErbB-2/ErbB-4 Inhibitor	A cell-permeable, ATP-binding site-targeting alkynamidopyrimidine compound that acts as a potent and irreversible inhibitor of erbB activities (IC_{50} = 0.3, 1.1, and 0.5 nM for erbB-1, erbB-2, and erbB-4, respectively).	324840	1 mg	$130
ERK Inhibitor	A cell-permeable anti-proliferative agent ($IC_{50} \leq$ 25 µM in HeLa, A549, and SUM-159 tumor cells) that preferentially binds to ERK2 with a K_D of ~5 µM and prevents its interaction with protein substrates.	328006	5 mg	$92
ERK Inhibitor II, FR180204	A cell-permeable, a potent, and ATP-competitive inhibitor of ERK1 and ERK2 (IC_{50} = 510 nM and 330 nM; K_i = 310 nM and 140 nM, respectively).	328007	1 mg	$140
ERK Inhibitor II, Negative Control	A cell-permeable compound that serves as a negative control for ERK Inhibitor II (Cat. No. 328007).	328008	1 mg	$140
ERK Inhibitor III	A cell-permeable compound that selectively inhibits the EGF-stimulated cellular phosphorylation of ERK substrates Rsk-1 and Elk-1, but not that of ERK1/2 or the anisomycin-induced phosphorylation of the p38 substrate ATP-2 in HeLa cells.	328009	5 mg	$95
FGF/VEGF Receptor Tyrosine Kinase Inhibitor, PD173074	A cell-permeable, potent, ATP-competitive, and reversible inhibitor of FGF and VEGF tyrosine kinase receptor (IC_{50} = 21.5 nM for FGFR1).	341607	2 mg	$125
Flt-3 Inhibitor	A cell-permeable, potent, ATP-competitive, and highly selective Flt-3 inhibitor (IC_{50} = 42 nM) with little effect against a panel of 22 other kinases ($IC_{50} \geq$ 3 µM).	343020	5 mg	$146
Flt-3 Inhibitor II	A cell-permeable that acts as an ATP-competitive inhibitor of Flt3 (IC_{50} = 33 nM for hFlt3 and 40 nM in EOL-1 cells) with moderate selectivity over PDGFR tyrosine Kinase (IC_{50} = 171 nM for hPDGFRβ and 300 nM in Swiss 3T3 fibroblasts).	343021	1 mg	$146
cFMS Receptor Tyrosine Kinase Inhibitor	A cell-permeable, potent, selective, and ATP-competitive inhibitor of cFMS kinase activity (IC_{50} = 30 nM) with minimal inhibition towards a panel of 26 other kinases (IC_{50} > 5 µM).	344036	1 mg	$85
GSK-3β Inhibitor XII, TWS119	A cell-permeable and a potent inhibitor of GSK-3β (IC_{50} = 30 nM).	361554	1 mg 5 mg	$94 $289
GSK-3 Inhibitor XIII	A potent and ATP-binding site inhibitor of GSK-3 with a K_i of 24 nM.	361555	1 mg 5 mg	$70 $209
GSK-3 Inhibitor IX, Control, MeBIO	A cell-permeable N-methylated analog of GSK-3 Inhibitor IX, BIO (Cat. No. 361550) that serves as a relevant kinase inactive control (IC_{50} > 92 µM for Cdk1/B, > 100 µM for Cdk5/p25, and GSK-3α/β). Acts as a potent ligand for aryl hydrocarbon receptor (AhR; EC_{50} = 20 nM and 93 nM for yeast and hepatoma reporter systems, respectively) and displays antiproliferative properties.	361556	1 mg	$97
InSolution™ GSK-3β Inhibitor VIII	A 25 mM (5 mg/649 µl) solution of GSK-3β Inhibitor VIII (Cat. No. 361549) in DMSO.	361557	5 mg	$87
Hydroxyfasudil	A cell-permeable, ATP-competitive, and reversible inhibitor of Rho-kinase (IC_{50} = 0.9 and 1.8 µM using a peptide and MLC as substrate, respectively) with ~100-fold greater selectivity over MLCK, MRCKβ, and PKC. Reported to inhibit the Rho kinase-mediated contraction both *in vitro* and *in vivo*.	390602	2 mg	$92
IGF-1R Inhibitor, PPP	A cell-permeable, non-competitive, potent, and specific inhibitor of IGF-1R tyrosine kinase both *in vitro* (IC_{50} = 1 nM in cell-free kinase assay; ≤ 60 nM for cell viability and receptor autophosphorylation in melanoma cell lines) and *in vivo* (complete inhibition of IGF-1R-dependent tumor cell growth at 20 mg/kg/12 hr i.p. in SCID mice).	407247	1 mg	$99
IGF-1R Inhibitor II	A cell-permeable inhibitor of IGF-1R autophosphorylation (IC_{50} = 12 µM in inhibiting ligand-induced autophosphorylation in MCF-7 cells and < 1 µM in a cell-free kinase assay).	407248	10 mg	$130
IKK Inhibitor III, BMS-345541	A cell-permeable, potent, selective, and allosteric site-binding inhibitor of IKK-2 (IC_{50} ~ 300 nM).	401480	1 mg	$164
InSolution™ IKK-2 Inhibitor, SC-514	A 25 mM (1 mg/178 µl) solution of IKK-2 Inhibitor, SC-514 (Cat. No. 401479) in DMSO.	401485	1 mg	$82
InSolution™ IKK-2 Inhibitor IV	A 10 mM (500 µg/179 µl) solution of IKK-2 Inhibitor IV (Cat. No. 401481) supplied in DMSO.	401484	500 µg	$87
IKK Inhibitor VII	A cell-permeable, potent, selective, and ATP-competitive inhibitor of IKK (IC_{50} = 40 nM, 70 nM, and 200 nM for IKK-2, IKK complex, and IKK-1, respectively).	401486	1 mg	$120
IKK-2 Inhibitor VIII	A cell-permeable, selective inhibitor of IKK-2 activity (IC_{50} = 8.5 and 250 nM for IKK-2 and IKK-1, respectively) with little effect towards IKK-3, Syk, and MKK4 (IC_{50} > 20 µM).	401487	1 mg	$135

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Product	Application	Cat. No.	Size	Price
Indirubin Derivative E804	A cell-permeable, potent, and ATP-competitive inhibitor of the kinase activities of Src (IC_{50} = 430 nM), Cdk1/cyclin E (IC_{50} = 210 nM), Cdk2/cyclin A (IC_{50} = 540 nM), and Cdk1/cyclin B (IC_{50} = 1.65 µM).	402081	1 mg	$92
IRAK-1/4 Inhibitor	A cell-permeable, potent, and selective inhibitor of interleukin-1 receptor-associated kinases (IC_{50} = 300 nM and 200 nM for IRAK-1 and -4). Shown to exhibit little activity against a panel of 27 other kinases (IC_{50} >10 µM), including lck and src.	407601	5 mg	$88
Isogranulatimide	A cell-permeable, potent, and ATP-competitive inhibitor of Chk1 (IC_{50} = 100 nM) and GSK-3β (IC_{50} = 500 nM).	371957	1 mg	$145
JAK2 Inhibitor II	A cell-permeable compound that interacts with a solvent-accessible pocket near the activation loop of JAK2 and acts as a specific and direct inhibitor of JAK2 autophosphorylation (maximal inhibition at 50 µM in BSC-40 cells overexpressing JAK2).	420132	25 mg	$92
JNK Inhibitor V	A cell-permeable, potent, and ATP-competitive inhibitor of c-Jun N-terminal kinase (JNK, IC_{50} = 150, 220, and 70 nM for hJNK1, hJNK2, and hJNK3, respectively; 120 nM for rat JNK3).	420129	5 mg	$150
JNK Inhibitor VII, TAT-TI-$JIP_{153-163}$ Cell-Permeable	The non-permeant JNK inhibitor peptide TI-$JIP_{153-163}$ (Cat. No. 420133) is made cell-permeable with an N-terminal TAT protein transduction domain sequence.	420134	2 mg	$192
JNK Inhibitor VI, TI-$JIP_{153-163}$	A murine JIP-1 JNK-binding domain- (JBD) derived 11-mer peptide that directly interacts with JNK (K_D in low µM range) and specifically inhibits JNK kinase activity without inhibitory effects towards ERK or p38.	420133	2 mg	$125
JNK Inhibitor VIII	A cell-permeable, ATP-competitive, and reversible inhibitor of JNK (K_i = 2 nM, 4 nM and 52 nM for JNK1, 2 and 3, respectively) and displays excellent selectivity over 72 other kinases.	420135	5 mg	$160
Lck Inhibitor	A cell-permeable, potent, selective, and ATP-competitive inhibitor of Lck (IC_{50} at 5 µM ATP = < 1 nM, 2 nM, 70 nM, 1.57 µM and 1.98 µM for $Lck_6$4-509 Y^{394}, Lckcd pY^{394}, Src, Kdr and Tie-2, respectively; IC_{50} at 1 mM ATP = 16 µM, 66 nM, 126 nM, 420 nM and 5.18 µM for $Lck_6$4-509 Y^{394}, Blk, Fyn, Lyn and Csk, respectively).	428205	1 mg	$85
Met Kinase Inhibitor	A cell-permeable, potent, reversible, and ATP-competitive inhibitor of Met kinase activity (IC_{50} = 20 nM).	448101	1 mg	$88
MNK1 Inhibitor	A cell-permeable pyrazolo-pyrimidine compound that acts as a selective inhibitor of mitogen-activated protein kinase-interacting kinase 1 (MNK1; IC_{50} = 2.2 µM) with no inhibitory activity against p38, JNK1, ERK1/2, PKC, or Src-like kinases.	454861	5 mg	$182
Naltrindole, Hydrochloride	A cell-permeable inhibitor of cellular Akt signaling. Decreases phosphorylation level of PDK1, Akt, FKHR/AFX, GSK-3β, and inhibits Akt-dependent cell growth in small cell lung cancer (SCLC) cell lines (IC_{50} = 25, 40, and 55 µM in NCI-H69, NCI-H345, and NCI-H510, respectively).	476880	5 mg	$87
p21-Activated Kinase Inhibitor, Negative Control	The inhibitory activity of p21-Activated Kinase Inhibitor PAK18 (Cat. No. 506101) is rendered inactive with a single amino acid mutation (R192A). Serves as an inactive control peptide.	506102	2 mg	$224
p21-Activated Kinase Inhibitor, PAK18	A PAK (p21-activated kinase) inhibitor peptide that is composed of the cell permeant TAT peptide sequence and an 18-mer Pro-rich PIX-interacting motif of PAK that disrupts PIX-PAK interaction, reduces cellular PAK phosphorylation, and induces neurodegenerative morphology in hippocampal neurons *in vitro*.	506101	2 mg	$224
InSolution™ p38 MAP Kinase Inhibitor III	A 10 mM (1 mg/247 µl) solution of p38 MAP Kinase Inhibitor III (Cat. No. 506121) in DMSO.	506148	1 mg	$126
InSolution™ PD 158780	A 10 mM (500 µg/151 µl) solution of PD 158780 (Cat. No. 513035) in DMSO	513036	500 µg	$111
PDGF Receptor Tyrosine Kinase Inhibitor IV	A cell-permeable, potent, ATP-competitive and reversible inhibitor of PDGFR (IC_{50} = 4.2 nM and 45 nM for -β and -α, respectively) and c-Abl (IC_{50} = 22 nM).	521233	1 mg	$140
PDGF Receptor Tyrosine Kinase Inhibitor V	A cell-permeable, potent, ATP-competitive, and reversible inhibitor of PDGFR (IC_{50} = 4 and 7.6 nM in ligand-induced cellular PDGFR phosphorylation and in *in vitro* kinase activity, respectively).	521234	1 mg	$165
PDK1/Akt/Flt Dual Pathway Inhibitor	A cell-permeable inhibitor of PDK1 and Akt in *in vitro* kinase activity. Blocks phosphorylation of Akt at both Ser^{473} and Thr^{308}.	521275	5 mg	$234
PKC_{β} Inhibitor	A potent and ATP-competitive inhibitor of PKC_{β} isozymes (IC_{50} = 5 nM and 21 nM for human $PKC_{\beta II}$ and $PKC_{\beta I}$).	539654	500 µg	$131
$PKC_{\beta II}$/EGFR Inhibitor	A cell-permeable, potent, and ATP-competitive inhibitor of EGFR tyrosine kinase and PKC isozymes α, βI, and βII (IC_{50} = 0.7 µM, 1.9 µM, 3.8 µM, and 0.41 µM, respectively).	539652	2 mg	$118

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Product	Application	Cat. No.	Size	Price
PP1 Analog II, 1NM-PP1	A cell-permeable PP1 analog (Cat. No. 529579) that acts as a potent and selective ATP-competitive inhibitor of mutant kinases over wild-type (IC_{50} = 3.2 nM for T339G, c-Fyn-as1 vs. 1.0 µM for c-Fyn; 4.3 nM for I338G, v-src-as1 vs. 28 µM for v-src; 5 nM for F80G, CDK2-as1 vs. 29 µM for CDK2; 8 nM for F89G, CAMK IIα-as1 vs. 24 µM for CAMKII; 120 nM for T315A, c-Abl-as2 vs. 3.4 µM for c-Abl).	529581	1 mg	$85
InSolution™ Rho Kinase Inhibitor	A 10 mM (500 µg/128 µl) solution of Rho Kinase Inhibitor (Cat. No. 555550) in H_2O.	555552	500 µg	$94
Rho Kinase Inhibitor III, Rockout	A cell permeable, selective, and ATP competitive inhibitor of Rho kinase (IC_{50} = 25 µM). Does not inhibit the activation of Rho kinase.	555553	10 mg	$92
Rho Kinase Inhibitor IV	A glycyl analog of Rho-Kinase Inhibitor (Cat. No. 555550) that inhibits ROCK with an improved selectivity (IC_{50} = 11.8 nM, >10 µM, >10 µM, 3.26 µM, 2.35 µM, and 2.57 µM for ROCKII, PKA, PKC, PKG, Aurora A, and CaMKII, respectively).	555554	1 mg	$161
Scytonemin, *Lyngbya* sp.	A cell-permeable inhibitor of *polo*-like kinase 1 (Plk1), PKCβ1, PKCβ2, Cdk1/B, Myt1, and Chk1 (IC_{50} = 2.0, 3.4, 2.7, 3.0, 1.2, and 1.4 µM, respectively) in a dose-dependent manner, exhibiting little activity towards PKA or Tie2 (IC_{50} >10 µM).	565715	1 mg	$102
Staurosporine, N-Benzoyl	A cell-permeable Staurosporine (Cat. No. 569397) derivative that displays antitumor properties. Acts as a broad-spectrum, reversible, and ATP-competitive inhibitor of PKC (α,β and γ), PDGFRβ, VEGFR2, Syk, PKCη, PKCδ, Flk-1, Flt3, Cdk1/B, PKA, c-Kit, c-Fgr, c-Src, VEGFR1, and EGFR (IC_{50} = 22 nM, 50 nM, 86 nM, 95 nM, 160 nM, 330 nM, 390 nM, 528 nM, 570 nM, 570 nM, 600 nM, 790 nM, 800 nM, 912 nM, and 1.0 µM, respectively).	539648	1 mg	$161
Syk Inhibitor II	A cell-permeable, potent, selective, and ATP-competitive inhibitor of Syk (IC_{50} = 41 nM).	574712	1 mg	$78
Syk Inhibitor III	A cell-permeable selective inhibitor of Syk kinase (IC_{50} = 2.5 µM).	574713	50 mg	$85
Syk Inhibitor IV, BAY 61-3606	A cell-permeable, potent, ATP-competitive, reversible, and highly selective inhibitor of Syk tyrosine kinase activity (IC_{50} = 10 nM).	574714	2 mg	$135
TGF-β RI Kinase Inhibitor II	A cell-permeable, potent, selective and ATP-competitive inhibitor of TGF-β type I receptor (ALK5; IC_{50} = 23 nM, 4 nM and 18 nM for ALK5 binding, ALK5 auto-phosphorylation and TGF-β cellular assay in HepG2 cells, respectively).	616452	1 mg	$102
TGF-β RI Inhibitor III	A cell-permeable, potent, ATP-competitive, reversible, and selective inhibitor of activin receptor-like kinase 4 (IC_{50} = 129 nM), 5 (IC_{50} = 47 nM), and 7.	616453	2 mg	$130
Tpl2 Kinase Inhibitor	A cell-permeable, potent, reversible, and ATP-competitive inhibitor of Tpl2 kinase (IC_{50} = 50 nM).	616373	1 mg	$130
Tyrene CR4	A cell permeable, potent inhibitor of JAK2 and Bcr-Abl (IC_{50}~ 100-600 nM and 500-700 nM, respectively).	655230	5 mg	$85
VEGF Receptor Tyrosine Kinase Inhibitor II	A potent inhibitor of the kinase activities of KDR, Flt-1 and c-Kit (IC_{50} = 20 nM, 180 nM and 240 nM, respectively), and minimally inhibit c-Src and EGF-R activities (IC_{50} = 7 µM and 7.3 µM).	676481	5 mg	$134
VEGF Receptor Tyrosine Kinase Inhibitor III, KRN633	A cell-permeable, reversible, ATP-competitive inhibitor of VEGFR kinase activity (IC_{50} = 170 nM, 160 nM, and 125 nM for VEGFR-1, VEGFR-2, VEGFR-3, respectively).	676482	1 mg	$145
VEGF Receptor 2/3 Tyrosine Kinase Inhibitor	A cell-permeable, potent and ATP-competitive inhibitor of VEGFR-2 and -3 kinase activities (IC_{50} = 2.5 nM and 5 nM, respectively) with >100-fold selectivity over 25 other commonly studied kinases.	676499	5 mg	$160
Wee1/Chk1 Inhibitor	A pyrrolocarbazole compound that acts as a potent and ATP-competitive inhibitor of checkpoint kinases Wee1 and Chk1 (IC_{50} = 97 nM and 47 nM, respectively).	681637	1 mg	$120

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Product	Application	Cat. No.	Size	Price
PI 3-Kinase Inhibitors				
PI 3-Kα Inhibitor IV	A cell-permeable, potent and isoform-selective inhibitor of PI 3-kinases (IC_{50} = 2 nM, 16 nM, 660 nM, and 220 nM for p110α, p110β p110γ, and PI 3-K C2β, respectively).	528111	5 mg	$185
PI 3-Kγ Inhibitor	A cell-permeable, potent, selective, and ATP-competitive inhibitor of phosphatidylinositol 3-kinase γ (PI 3-Kγ) (K_i = 7.8 nM; IC_{50} = 8 nM, 60 nM, 270 nM, 300 nM for p110-γ, α,β and δ-isoforms, respectively).	528106	5 mg	$145
PI 3-Kγ Inhibitor II	A cell-permeable, potent, and ATP-competitive inhibitor of PI 3-Kγ (K_i = 180 nM; IC_{50} = 250 nM).	528108	5 mg	$140
PI-103	A cell-permeable, potent, and ATP-competitive inhibitor of DNA-PK, PI3-K, and mTOR (IC_{50} = 2, 8, 88, 48, 150, 26, 20, and 83 nM for DNA-PK, p110α, p110β, p110δ, p110γ, PI3-KC2β, mTORC1, and mTORC2, respectively).	528100	1 mg 5 mg	$99 $364
PI 3-Kγ/CKII Inhibitor	A cell-permeable, potent and ATP-competitive dual specific inhibitor of PI 3-Kγ/CKII (IC_{50} = 20 nM and 20 nM) with selectivities over PI 3-Kα, β and δ (IC_{50} = 940 nM, 20 µM, and 20 µM, respectively) and 78-other kinases tested.	528112	5 mg	$140
Enzymes/proteins				
Akt2, GST-Fusion Protein, Active, Human, Recombinant, Insect Cells	Human, recombinant Akt2 consisting of amino acids 1-119 (minus the PH domain) expressed as a GST fusion protein (N-terminal) using a baculovirus expression system. *Purity: >80% by SDS-PAGE.*	124021	20 µg	$316
Akt3, GST-Fusion Protein, Active, Human, Recombinant, *S. frugiperda*	Full-length, human, recombinant Akt3 (accession number = NM_005465) fused to GST at the N-terminus and expressed in *S. frugiperda* insect cells using a baculovirus expression system. *Specific activity:≥ 176 nmol/min/mg protein. Purity: >92% by SDS-PAGE.*	124022	5 µg	$104
Aurora A, His•Tag®and S• Tag™, Human Recombinant, *S. frugiperda*	Full-length, human Aurora A (amino acids 1-403) (GenBank target symbol= PTEN, ACC No. NM_003600) expressed in *S. frugiperda* insect cells with N-terminal His•Tag® and S•Tag™ sequences. *Specific activity: >500 units/mg protein. Purity:≥80% by SDS-PAGE.*	481410	10 µg	$321
Casein Kinase II, α2, Active, Human, Recombinant, *E. coli*	Recombinant, human casein kinase II, α2, (CKII, α2) fused to myelin basic protein (MBP) at the N-terminus and expressed in *E. coli.* CKII, α2 is a catalytic subunit of the serine/threonine protein kinase CKII. *Specific activity:≥1,000,000 units/mg protein. Purity:≥ 90% by SDS PAGE.*	218709	10 µg	$156
CDK1/CycB, GST-Fusion, Human, Recombinant, *S. frugiperda*	Recombinant, human Cdk1 (amino acids 1-297) and recombinant human cyclin B (amino acids 1-433), each fused to a GST-His_6thrombin cleavage site sequence at their respective N-termini and co-expressed in *S. frugiperda* insect cells using a baculovirus expression system. *Specific activity:≥2 pmol/min/µg protein.*	325897	10 µg	$285
CDK2/CycA, GST-Fusion, Human, Recombinant, *S. frugiperda*	Recombinant, human cyclin dependent kinase 2 (Cdk2; amino acids 1-298) and recombinant, human cyclin A (CycA; amino acids 1-432), each fused to a GST-thrombin cleavage site sequence at their respective N-termi and co-expressed in *S. frugiperda* insect cells using a baculovirus expression system. *Specific activity:≥9 pmol/min/µg protein.*	325898	10 µg	$285
CDK4/CycD1, GST-Fusion, Human, Recombinant, *S. frugiperda*	Recombinant, human cyclin dependent kinase 4 (Cdk4) and recombinant, human cyclin D1 (CycD1), each fused to a GST-thrombin cleavage site sequence at their respective N-termini and co-expressed in *S. frugiperda* insect cells using a baculovirus expression system. *Specific activity:≥91 pmol/min/µg protein.*	325899	10 µg	$285
CDK6/CycD1, GST-Fusion, Human, Recombinant, *S. frugiperda*	Recombinant, human cyclin dependent kinase 6 (Cdk6) and recombinant, human cyclin D1 (CycD1) each fused to a GST-thrombin cleavage site sequence at their respective N-termini and co-expressed in *S. frugiperda* insect cells using a baculovirus expression system. *Specific activity:≥11 pmol/min/µg protein.*	325900	10 µg	$285
Chk2, His•Tag®, Active, Human, Recombinant, *S. frugiperda*	Recombinant, active, human checkpoint homologue kinase 2 (Chk2) expressed in *S. frugiperda* insect cells with an N-terminal His•Tag® sequence. Specific activity: ≥ 25,000 units/mg protein. *Purity:≥ 95% by SDS PAGE*	220487	20 µg	$270
CSK, GST-Fusion Protein, Active, Human, Recombinant, *S. frugiperda*	Full-length, human, recombinant CSK (Genbank accession number = NM_004383) fused to GST at the N-terminus and expressed in*S. frugiperda* insect cells using a baculovirus expression system. *Specific activity:≥362 nmol/min/mg protein. Purity: >85% by SDS-PAGE.*	235706	5 µg	$104
DAPK1, GST-Fusion, Human, Recombinant, *S. frugiperda*	Recombinant human death associated protein kinase (DAPK1) fused at the N-terminus to a GST-His_6-thrombin cleavage site sequence and expressed in *S. frugiperda* insect cells using a baculovirus expression system. *Specific activity:≥50 pmol/min/µg protein.*	324782	10 µg	$296

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Product	Application	Cat. No.	Size	Price
DDR2, GST-Fusion, Human, Recombinant, *S. frugiperda*	Recombinant, human discoidin domain receptor 2 (DDR2) containing amino acids 467-834 fused at the N-terminus to GST and expressed in *S. frugiperda* insect cells using a baculovirus expression system. *Specific activity:≥20 nmol/min/mg protein. Purity:≥95% by SDS-PAGE.*	124023	5 µg	$296
EPHB4, GST-Fusion, Human, Recombinant, *S. frugiperda*	Recombinant, human EPH-related tyrosine kinase receptor B4 (EPHB4) fused at the N-terminus to a GST-His_6-thrombin cleavage sequence tag and expressed in *S. frugiperda* insect cells using a baculovirus expression system. *Specific activity:≥60 pmol/min/µg protein.*	324783	10 µg	$296
ErbB2, GST-Fusion, Human, Recombinant, *S. frugiperda*	Recombinant human ErbB2 (v-erb-b2 erythroblastic leukemia viral oncogene homolog 2) fused at the N-terminus to GST-His_6-thrombin cleavage site and expressed in *S. frugiperda* using a baculovirus expression system. *Specific activity:≥20 pmol/µg protein.*	324784	10 µg	$296
ErbB4, GST-Fusion, Human, Recombinant, *S. frugiperda*	Recombinant, human v-erb-a erythroblastic leukemia viral oncogene omolog 4 (ErbB4) fused at the N-terminus to a GST-His_6thrombin cleavage site sequence and expressed in *S. frugiperda* insect cells using a baculovirus expression system. *Specific activity:≥20 pmol/ µg protein.*	324785	10 µg	$285
FAK, GST-Fusion, Human, Recombinant, *S. frugiperda*	Recombinant, human Focal Adhesion Kinase (FAK) fused at the N-terminus to a GST-thrombin cleavage site sequence and expressed in *S. frugiperda* insect cells using a baculovirus expression system. *Specific activity:≥1.0 pmol/min/µg protein.*	324876	10 µg	$296
FGF-R1, GST-Fusion, Human, Recombinant, *S. frugiperda*	Recombinant human FGF-R1(Fibroblast Growth Factor Receptor 1) fused to GST-His_6thrombin cleavage site in the N-terminal position and expressed in *S. frugiperda* insect cells. *Specific activity:≥15 pmol/min/µg protein.*	325877	10 µg	$296
FGF-R3, GST-Fusion, Human, Recombinant, *S. frugiperda*	Recombinant, human Fibroblast Growth Factor Receptor 3 (FGF-R3) fused at the N-terminus to a GST-His_6-thrombin cleavage site sequence and expressed in *S. frugiperda* using a baculovirus expression system. *Specific activity:≥7 pmol/min/µg protein.*	325878	10 µg	$296
FGR, GST-Fusion, Human, Recombinant, *S. frugiperda*	Recombinant, human gardner-rasheed feline sarcoma viral (v-fgr) oncogene homolog (FGR) fused at the N-terminus to a GST-His_6-thrombin cleavage site sequence and expressed in *S. frugiperda* insect cells using a baculovirus expression system. *Specific activity:≥10 pmol/min/µg protein.*	325879	10 µg	$296
FKBP12, GST-Fusion, Human, Recombinant , *E. coli*	Full-length recombinant, human FK506 binding protein 12-rapamycin associated protein 1 (FKBP12) (accession number = NP000792) fused to GST at the N-terminus and expressed in *E.coli.*	325902	60 µg	$205
Flt-3, GST-Fusion, Human, Recombinant, *S. frugiperda*	Recombinant, human FMS-like Tyrosine Kinase 3 (Flt-3) fused at the N-terminus to a GST-His_6-thrombin cleavage site sequence and expressed in *S. frugiperda* insect cells using a baculovirus expression system. *Specific activity:≥25 pmol/min/µg protein.*	325880	10 µg	$296
Glycogen Synthase Kinase 3β-Isozyme, Rabbit Skeletal Muscle, Recombinant, *E. coli*	Dual specificity kinase. One of several protein kinases that phosphorylates glycogen synthase. Other substrates include $p90^{rsk}$, Tau, c-Jun, and CREB. *Specific activity:≥5,000,000 units/mg protein.*	361526	5 KU	$314
IGF-1R, GST-Fusion, Human, Recombinant, *S. frugiperda*	Recombinant, human Insulin-like Growth Factor-1 Receptor (IGF-1R) fused at the N-terminus to a GST-His_6-thrombin cleavage site sequence and expressed in *S. frugiperda* insect cells using a baculovirus expression system. *Specific activity:≥45 pmol/min/µg protein. Purity:≥80% by SDS-PAGE.*	325881	10 µg	$296
IKKβ, His•Tag® and S•Tag™, Human Recombinant, *S. frugiperda*	Full-length, recombinant, human IKKβ (amino acids 1-756) (GenBank target symbol= IKBKB, ACC No. NM_001556) expressed in *S. frugiperda* insect cells with N-terminal His•Tag® and S•Tag™ sequences. *Specific activity:≥50 units/mg protein.*	481404	10 µg	$321
IRAK4, GST-Fusion, Human, Recombinant, *S. frugiperda*	Recombinant, human IL-1 receptor-associated kinase 4 (IRAK4) fused at the N-terminus to a GST-His_6-thrombin cleavage site sequence and expressed in *S. frugiperda* insect cells using a baculovirus expression system. *Specific activity:≥480 pmol/min/µg protein.*	325882	10 µg	$296
IRSp53, His•Tag® fusion	Full-length, recombinant, human insulin receptor substrate p53 (IRSp53) expressed in *E. coli* with N-terminal His•Tag® and S•Tag™ sequences. This preparation is qualified for use as a substrate for protein tyrosine kinases in *in vitro* assays. *Purity: >90% by SDS-PAGE.*	506151	50 µg	$130
IRS1-p30, Human, Recombinant, *E. coli*	Recombinant, human insulin receptor substrate 1 (IRS1) consisting of the p30 fragment (IRS1p30, amino acids 516-777) expressed in *E. coli.* IRS1 is a major endogenous substrate for insulin receptor and IGF-1R tyrosine kinase activity. *Purity: >95% by SDS-PAGE.*	663001	150 µg	$567
JAK3, GST-Fusion, Human, Recombinant, *S. frugiperda*	Recombinant, human janus kinase 3 (JAK3) fused at the N-terminus to a GST-His_6-thrombin cleavage site sequence and expressed in *S. frugiperda* insect cells using a baculovirus expression system. *Specific activity:≥6.0 pmol/min/µg.*	325883	10 µg	$296

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Product	Application	Cat. No.	Size	Price
JNK3, GST-Fusion, Human, Recombinant, *S. frugiperda*	Recombinant, human jun kinase 3 or Rat stress-activated protein kinaseβ (JNK3) fused at the N-terminus to a GST-His_6-thrombin cleavage site sequence and expressed in *S. frugiperda* insect cells using a baculovirus expression system. *Specific activity:≥0.1 pmol/min/µg.*	325884	10 µg	$296
MAPKAPK2, GST-Fusion Protein, Active, Human, Recombinant, *S. frugiperda*	Human, recombinant mitogen-activated rotein kinase-activated protein 2 (MAPKAPK 2) (accession number = NM_032960) fused to GST at the N-terminus and expressed in *S. frugiperda* insect cells using a baculovirus expression system. *Purity: >90% by SDS-PAGE.*	475861	5 µg	$156
MAPKAPK3, GST-Fusion Protein, Active, Human, Recombinant, *S. frugiperda*	Full length, recombinant, human mitogen-activated protein kinase-activated protein 3 (MAPKAPK 3) (accession number = NM_004635), fused to GST at the N-terminus and expressed in *S. frugiperda* insect cells using a baculovirus expression system. *Specific activity:≥540 nmol/min/mg. Purity:≥90% by SDS-PAGE.*	475862	5 µg	$156
MEK1, Active, Human, Recombinant, *E. coli*	Recombinant, human mitogen activated protein kinase kinase (MEK1) fused to GST at the N-terminus and expressed in *E. coli. Specific activity:≥ 250,000 units/mg protein. Purity:≥ 90% by SDS PAGE.*	475702	10 µg	$270
MET, GST-Fusion, Human, Recombinant, *S. frugiperda*	Recombinant, human hepatocyte growth factor receptor (MET) fused at the N-terminus to a GST-His_6-thrombin cleavage site sequence and expressed in *S. frugiperda* insect cells using a baculovirus expression system. *Specific activity:≥30 pmol/min/µg protein.*	325885	10 µg	$296
MKK6, Active, Human, Recombinant, *E. coli*	Recombinant, human, mitogen activated protein kinase kinase 6 (MKK6) fused to GST at the N-terminus and expressed in *E. coli. Specific activity:≥ 50,000 units/mg protein. Purity:≥ 90% by SDS PAGE.*	475701	20 µg	$270
MuSK, GST-Fusion, Human, Recombinant, *S. frugiperda*	Recombinant, human muscle-specific receptor tyrosine kinase (MuSK) fused at the N-terminus to a GST-His_6-thrombin cleavage site sequence and expressed in *S. frugiperda* insect cells using a baculovirus expression system. *Specific activity:≥15 pmol/min/µg protein.*	325887	10 µg	$296
Myelin Basic Protein, Mouse	Native myelin basic protein purified from mouse central nervous system tissue using the method of Määtä, et al. *Purity:≥95% by SDS-PAGE.*	124027	1 mg	$229
Myosin Regulatory Light Chain-2, His•Tag® fusion	Full-length, recombinant, human myosin regulatory light chain-2 (MRLC-2) expressed in *E. coli* with N-terminal His•Tag® and S•Tag™ sequences. This preparation is qualified for use as a substrate for protein tyrosine kinases in *in vitro* assays. *Purity: >90% by SDS-PAGE.*	476125	50 µg	$78
NEK2, GST-Fusion, Human, Recombinant, *S. frugiperda*	Recombinant, human Never in mitosis gene A-related protein kinase 2 (NEK2) fused at the N-terminus to a GST-His_6-thrombin cleavage site sequence and expressed in *S. frugiperda* insect cells using a baculovirus expression system. *Specific activity:≥15 pmol/min/µg protein.*	325888	10 µg	$296
p38δ, GST-Fusion Protein, Active, Human, Recombinant, *S. frugiperda*	Full-length, recombinant, human p38δ/stress-activated protein kinase 4 (SAPK4), (accession number = NM_002754) fused to GST at the N-terminus and expressed in insect cells using a baculovirus expression system. *Specific activity:≥220 nmol/min/mg. Purity:≥80% by SDS-PAGE.*	559325	5 µg	$156
PAK1, GST-Fusion, Human, Recombinant, *S. frugiperda*	Recombinant, human p21-activated protein kinase 1 (PAK1) fused at the N-terminus to a GST-His_6-thrombin cleavage site sequence and expressed in *S. frugiperda* insect cells using a baculovirus expression system. *Specific activity:≥325 pmol/min/µg protein.*	325889	10 µg	$296
PAK2, GST-Fusion, Human, Recombinant, *S. frugiperda*	Recombinant, human p21-activated protein kinase 2 (PAK2) fused at the N-terminus to a GST-His_6-thrombin cleavage site sequence and expressed in *S. frugiperda* insect cells using a baculovirus expression system. *Specific activity:≥193 pmol/min/µg protein. Purity:≥95% by SDS-PAGE.*	325890	10 µg	$285
PDGFR-α, GST-Fusion, Human, Recombinant, *S. frugiperda*	Recombinant, human α-platelet-derived growth factor receptor (PDGRF-α) fused at the N-terminus to a GST-His_6thrombin cleavage site sequence and expressed in *S. frugiperda* insect cells using a baculovirus expression system. *Specific activity:≥8 pmol/min/µg protein.*	325891	10 µg	$285
PDGFR-β, GST-Fusion, Human, Recombinant, *S. frugiperda*	Recombinant, human β-platelet-derived growth factor receptor (PDGRF-β) fused at the N-terminus to a GST-His_6thrombin cleavage site sequence and expressed in *S. frugiperda* insect cells using a baculovirus expression system. *Specific activity:≥6 pmol/min/µg protein.*	325892	10 µg	$285
Phospholipase C-γ-1, His•Tag® fusion	Full-length, recombinant, human phospholipase C-γ-1 (1-phosphotidylinositol-4,5-bisphosphate phosphodiesterase-γ-1, PLC-γ-1, PLC-II, PLCG-1) expressed in *S. frugiperda* insect cells with N-terminal His•Tag® and S•Tag™ sequences. *Purity: >90% by SDS-PAGE.*	525188	50 µg	$156
Phospholipase C-γ-2, His•Tag® fusion, *S. frugiperda*	Full-length, recombinant, human phospholipase C γ-2 (phosphatidylinositol-4,5-bisphosphate phosphodiesterase-γ-2, PLC-IV, PLC-γ-2) expressed in *S. frugiperda* insect cells with N-terminal His•Tag® and S•Tag™ sequences. *Purity: >90% by SDS-PAGE.*	525189	50 µg	$156
PI 3-K NT-frag., His•Tag® fusion	Recombinant, human protein containing the N-terminal 483 aa of human phosphatidylinositol 3-kinase (PI 3-K) with one mutation (N483K) expressed in *E. coli* with N-terminal His•Tag® and S•Tag™ sequences. *Purity: >90% by SDS-PAGE.*	526555	50 µg	$130

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Product	Application	Cat. No.	Size	Price
PKCε, GST-Fusion Protein, Active, Human, Recombinant, *S. frugiperda*	Full-length, recombinant, human PKCε (protein kinase Cε) (Genbank accession number = NM_005400) fused at the N-terminus with GST and expressed in *S. frugiperda* insect cells using a baculovirus expression system. *Specific activity:≥1000 nmol/min/mg. Purity: >90% by SDS-PAGE.*	539691	5 µg	$104
PKCι, GST-Fusion Protein, Active, Human, Recombinant, *S. frugiperda*	Full-length, human, recombinant PKCι (protein kinase Cι) (accession number = NM_002740) fused to GST at the N-terminus and expressed in *S. frugiperda* insect cells using a baculovirus expression system. *Specific activity:≥565 nmol/min/mg protein. Purity:≥90% by SDS-PAGE.*	539685	5 µg	$99
PKCμ, GST-Fusion Protein, Active, Human, Recombinant, *S. frugiperda*	Full-length, human, recombinant PKCμ (protein kinase Cμ) (accession number = NM_X75756) fused to GST at the N-terminus and expressed in *S. frugiperda* insect cells cells using a baculovirus expression system. *Specific activity:≥560 nmol/min/mg protein. Purity:≥90% by SDS-PAGE.*	539686	5 µg	$104
PKCν, GST-Fusion Protein, Active, Human, Recombinant, *S. frugiperda*	Full-length, human, recombinant PKCη (protein kinase Cη) (accession number = NM_005813) fused to GST at the N-terminus and expressed in *S. frugiperda* insect cells cells using a baculovirus expression system. *Specific activity:≥67 nmol/min/mg protein. Purity:≥80% by SDS-PAGE.*	539687	5 µg	$104
Plk1, His•Tag®, Human, Recombinant, *S. frugiperda*	Human recombinant Polo-Like Kinase 1 (Plk1) expressed in insect cells using a baculovirus expression system. *Purity:≥95% by SDS-PAGE.*	346102	5000 U	$359
Protein Kinase A, His•Tag®, Active, Human, Recombinant, *E. coli*	Recombinant, human, catalytic subunit a of protein kinase A (cAMP-dependent protein kinase or PKA) expressed with an N-terminal His•Tag® sequence in *E. coli*. Specific activity: ≥ 500,000 units/mg protein. *Purity:≥ 95% by SDS PAGE.*	539482	50 µg	$270
Protein Kinase A, Catalytic Subunit, Bovine Heart	Protein kinse A (PKA) catalytic subunit purified from bovine heart. PKA is a cAMP-dependent, serine/threonine protein kinase. *Specific activity:≥20,000 units/µg protein. Purity:≥95% by SDS-PAGE.*	539576	25 µg	$291
Protein Kinase A, Regulatory Subunit Type II, Bovine Heart	RII protein kinase A (PKA) regulatory subunit protein purified from bovine heart. S*pecific activity: ≥ 1000 units/µg protein.*	539577	50 µg	$180
Protein Kinase G, Iα, Bovine Lung	Protein kinase G (PKG) purified from bovine lung. Cyclic GMP-dependent protein kinase (PKG) is involved in regulation of smooth muscle relaxation, platelet function, and cell division. *Specific activity:≥1300 units/µg enzyme.*	539578	4 µg	$250
Raf1, GST-Fusion Protein, Active, Human, Recombinant, *S. frugiperda*	Human, recombinant Raf1 protein (accession number = NM_002880) consisting of amino acids 307-648 fused to GST at the N-terminus and expressed in *S. frugiperda* insect cells cells using a baculovirus expression system. *Specific activity:≥ 90 nmol/min/mg protein. Purity:≥90% by SDS-PAGE.*	553012	5 µg	$156
SGK1, GST-Fusion Protein, Active, Human, Recombinant, *S. frugiperda*	Human, recombinant SGK1 (serum/glucocorticoid regulated kinase 1) (accession number = NM_005627) consisting of amino acids 61-431 fused to GST at the N-terminus and expressed in *S. frugiperda* insect cells cells using a baculovirus expression system. *Specific activity:≥ 55 nmol/min/mg protein. Purity: ≥95% by SDS-PAGE.*	535851	5 µg	$104
Src1, GST-Fusion Protein, Active, Human, Recombinant, *S. frugiperda*	Full-length, human, recombinant Src1 (accession number = M11753) fused at the N-terminus to GST and expressed in *S. frugiperda* insect cells cells using a baculovirus expression system. *Specific activity:≥ 98 nmol/min/mg protein. Purity:≥90% by SDS-PAGE.*	539688	5 µg	$104
SYK, GST-Fusion, Human, Recombinant, *S. frugiperda*	Recombinant, human spleen tyrosine kinase (SYK) fused at the N-terminus to a GST-His_6thrombin cleavage site sequence and expressed in *S. frugiperda* insect cells using a baculovirus expression system. *Specific activity:≥10 pmol/min/µg protein.*	325893	10 µg	$285
Tie2, GST-Fusion, Human, Recombinant, *S. frugiperda*	Recombinant, human tunica interna endothelial cell kinase 2 (Tie2) fused to a GST-His_6-thrombin cleavage site sequence at the N-terminus and expressed in *S. frugiperda* insect cells using a baculovirus expression system. *Specific activity:≥95 units/µg protein.*	325894	10 µg	$285
Tie2, His•Tag®, Human, Recombinant, *S. frugiperda*	Recombinant, human Tunica Internal Endothelial Cell 2 (Tie2) fused a His•Tag® sequence at the N-terminus and expressed in *Spodoptera frugiperda* insect cells using a baculovirus expression system. *Specific activity:≥140 units/µg protein. Purity: >80% by SDS-PAGE.*	124024	10 µg	$296
VEGF-R1, GST-Fusion, Human, Recombinant, *S. frugiperda*	Recombinant, human vascular endothelial growth factor receptor 1 (VEGF-R1) fused at the N-terminus to a GST-His_6-thrombin cleavage site sequence and expressed in *S. frugiperda* insect cells using a baculovirus expression system. *Specific activity:≥45 pmol/min/µg protein.*	325895	10 µg	$285
WEE1, GST-Fusion, Human, Recombinant, *S. frugiperda*	Recombinant, human WEE1 fused at the N-terminus to a GST-His_6thrombin cleavage site sequence and expressed in *S. frugiperda* insect cells using a baculovirus expression system. *Specific activity:≥1 pmol/min/µg protein.*	325896	10 µg	$285
ZAP70, GST-Fusion Protein, Active, Human, Recombinant, *S. frugiperda*	Full-length, human, recombinant ZAP70 protein (accession number = NM_001079) fused to GST at the N-terminus and expressed in S. frugiperda insect cells cells using a baculovirus expression system. *Specific activity:≥ 96 nmol/min/mg protein. Purity:≥90% by SDS-PAGE.*	539689	5 µg	$104

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Technical Support
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Product	Application	Cat. No.	Size	Price

Protein Phosphatase Related Products

Antibodies

Anti-PTEN Mouse mAb (EMD-15E10)	Recognizes the ~55 kDa PTEN protein in MCF-7 cells. **ELISA, IP, NOT IB**	AP1041	50 µg	$145
Anti-PTEN Mouse mAb (EMD-4B8)	Recognizes the ~55 kDa PTEN protein in MCF-7 cells. **IB, NOT IP**	AP1042	50 µg	$145

Inhibitors

CDC25 Phosphatase Inhibitor III, BN82685, Benzoate Salt	A cell-permeable, potent, selective, and irreversible inhibitor of CDC25 family phosphatases (IC_{50} = 109, 160, 249, 201, and 117 nM for 25A, 25B2, 25B3, 25C, and 25C-cat, respectively).	217693	5 mg	$151
eIF-2α Inhibitor, Salubrinal	A cell-permeable and selective inhibitor of the phosphatase complexes that dephosphorylate eukaryotic translation initiation factor 2 subunit α (eIF-2 α).	324895	5 mg	$134
InSolution™ Nodularin, *Nodularia spumigena*	A potent, non-covalent-binding inhibitor of protein phosphatases PP2A and PP1 (IC_{50} = 33 pM and 1.6 nM, respectively, using phosphorylase a as the substrate).	488003	50 µg	$99
InSolution™ Okadaic Acid, Prorocentrum sp.	A 250 µM (25 µg/124 µl) solution of Okadaic Acid, (Cat. No 495604) in DMSO.	495609	25 µg	$68
Phosphatase Inhibitor Cocktail Set III	A cocktail of four phosphatase inhibitors for broad-spectrum inhibition of both serine/threonine and protein tyrosine phosphatases. Available as a 1 ml vial or as a set of five 1 ml vials. Each vial contains 1 ml of aqueous solution with the following components: 50 mM sodium fluoride, 10 mM β-Glycerophosphate (Cat. No. 356756), 10 mM sodium pyrophosphate decahydrate, 1 mM sodium orthovanadate.	524627	1 ml 1 set	$120 $411
Phosphatase Inhibitor Cocktail Set IV	A cocktail of three phosphatase inhibitors for the inhibition of both serine/threonine and alkaline phosphatases. Available as a 1 ml vial or as a set of five 1 ml vials. Each vial contains a 1 ml (DMSO:H_2O) solution with the following components: 500 µM Cantharidin (Cat. No. 210155), 2.5 mM (-)-*p*-Bromotetramisole oxalate, and 1 µM Calyculin A, *Discodermia calyx* (Cat. No. 208851).	524628	1 ml 1 set	$78 $296
PRL-3 Inhibitor	A cell-permeable benzylidene rhodanine compound that potently inhibits hPRL-3 (IC_{50} = 900 nM), a member of the regenerating liver family tyrosine phosphatases.	539808	10 mg	$130
SHP1/2 PTPase Inhibitor, NSC-87877	A cell-permeable 7-aza-8-hydroxyquinoline compound that acts as a potent, catalytic site-targeting inhibitor of SHP-1 and SHP-2 protein tyrosine phosphatases (IC_{50} = 355 nM and 318 nM, respectively).	565851	50 mg	$88
InSolution™ Tautomycetin, *S. griseochromogenes*	A cell-permeable Tautomycin (Cat. No. 580551) structural analog that acts as a selective PP1 inhibitor with ~38-fold greater potency compared to PP2A (IC_{50} = 1.6 nM for PP1 and 62 nM for PP2A).	580550	50 µg	$187

Enzymes

PTEN, His•Tag® and S•Tag™, Human Recombinant, *S. frugiperda*	Human full-length PTEN (**p**hosphatase and **ten** sin homolog deleted on chromosome 10) (GenBank target symbol = PTEN, ACC No. BC_005821) containing an N-terminal His•Tag® sequence and an S•Tag™ sequence was expressed in and purified from *Spodoptera frugiperda* insect cells. *Specific activity:≥75 U/mg protein. Purity:≥80% by SDS-PAGE.*	481409	10 µg	$321
PTP-PEST, GST-Fusion Protein, Human, Recombinant, *E. coli*	The catalytic domain (amino acids 2-300) of human protein tyrosine phosphatase-PEST (accession number D13380) expressed in *E. coli* with an N-terminal GST fusion protein. It is useful for the study of enzyme kinetics, regulation, and inhibitor screening. *Specific activity: 0.33 nmole/min/µg protein. Purity: ≥90% by SDS-PAGE.*	535856	20 µg	$187
PTP-MEG2, GST-Fusion Protein, Human, Recombinant, *E. coli*	Recombinant catalytic domain of human MEG2 protein tyrosine phosphatase (PTP-MEG2) (Accession number = M83738) consisting of amino acids 285-593 fused to GST at the N-terminus, expressed in and purified from *E. coli. Specific activity: 1 nmole/min/µg protein.*	535857	20 µg	$187

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Product	Application	Cat. No.	Size	Price

Transcription Factors and Related Products

Kit

PhosphoDetect™ ATF2 (pThr$^{69/71}$) ELISA Kit	Detects and quantifies the level of ATF2 (activating transcription factor 2) protein that is phosphorylated at Thr$^{69/71.}$ *Assay range: 1.56-100 U/ml.*	CBA036	1 kit	$575
PhosphoDetect™ STAT Antibody Sampler Kit	A convenient set of affinity purified antibodies useful for evaluating the activation status of various STAT proteins, including the phosphorylation of STAT1 at Tyr^{701}, STAT2 at Tyr^{690}, STAT3 at Tyr^{705}/Ser^{727}, STAT5 at Tyr^{694} and STAT6 at Tyr^{641}.	PS1021	1 kit	$450
STAT1 **ELISA** Kit	Detects and quantifies the level of STAT1 protein independent of its phosphorylation state. *Format: 96-well plate; Sensitivity: <0.27 ng/ml; Assay range: 0.3-20 ng/ml.*	CBA034	1 kit	$575
PhosphoDetect™ STAT1 (pTyr^{701}) ELISA Kit	Detects and quantifies level of the STAT1 phosphorylated at Tyr^{701}. *Format: 96-well plate; Sensitivity: < 0.9 Unit/ml; Assay range: 1.6-100 units/ml.*	CBA035	1 kit	$575

Antibodies

Anti-FOXO1A Rabbit pAb	Recognizes the ~69 kDa FOXO1A (Forkhead Box O1A) protein (Accession Number: NP_002006) in 293 whole cell extracts. **IB, IP**	ST1094	50 µg	$145
PhosphoDetect™ Anti-Smad3 (pSer$^{433/435}$) Rabbit pAb	Recognizes the ~58 kDa Smad3 protein phosphorylated at Ser^{433} and Ser^{435} in TGF-β-treated HeLa cells. **IB, IC**	PK1012	50 µl	$209
Anti-Smad4 Rabbit pAb	Recognizes the ~70 kDa Smad4 protein in COS, NIH3T3, PC12 and SK-N-MC cells. **IB**	ST1103	50 µl	$145
Anti-Smad5 Rabbit pAb	Recognizes the ~60 kDa Smad5 protein in SK-N-M, COS, and PC12 cells. **IB**	ST1104	50 µl	$145
PhosphoDetect™ Anti-STAT2 (pTyr^{690}) Rabbit pAb	Recognizes the ~113 kDa human STAT2 protein phosphorylated at Tyr^{690} in HeLa cells. **IB, IP**	ST1106	50 µl	$209
Anti-STAT5 Rabbit pAb	Recognizes the ~90 kDa STAT5α and STAT5β (doublet) proteins in K562 cells. **IB, IP**	ST1105	50 µl	$145
Anti-TORC2 (454-607) Rabbit pAb	Recognizes the ~79-85 kDa TORC2 protein in primary hepatocytes. **IB, IP**	ST1099	50 µl	$145
Anti-PAN TORC (1-42) Rabbit pAb	Recognizes the ~79 kDa TORC1, TORC2, and TORC3 proteins in 293T cells over-expressing TORC1, TORC2, or TORC3. Recognizes endogenous TORC1 and TORC2. **IB, IP**	ST1098	50 µl	$145

Inhibitor

Smad3 Inhibitor, SIS3	A cell-permeable compound that selectively inhibits TGF-β1-dependent Smad3 phosphorylation and Smad3-mediated cellular signaling with no effect on Smad2, p38 MAPK, ERK, or PI 3-K signaling.	566405	1 mg	$120
STAT3 Inhibitor Peptide II, ErbB2-Selective, Cell-Permeable	The SH2 domain-binding motif- (Cat. No. 573095) derived STAT3 inhibiting sequence, PpYL (STAT3BP), is conjugated with a cell-permeant carrier sequence P3-AHNP (Cat. No. 573094), to allow its preferential delivery to ErbB2 high-expressing cells for STAT3 inhibition.	573092	2 mg	$473

Miscellaneous

Antibodies

Anti-N-Cadherin Mouse mAb (13A9)	Recognizes the ~140 kDa N-Cadherin protein in HeLa cells. **IB, IP**	CA1029	50 µl	$145
Anti-CD68 Mouse mAb (KP1)	Recognizes the ~110 kDa CD68 protein on macrophages in a wide variety of human tissues, including Kupffer cells, in the red pulp of the spleen, lamina propria of the gut, lung alveoli, and bone marrow. **IH**	CB1014	500 µl	$255
Anti-CRM1 Rabbit pAb	Recognizes the ~100 kDa human CRM1 protein in HeLa cells. **IB, IP**	ST1100	50 µg	$145
PhosphoDetect™ Anti-eIF-2Bε (pSer^{539}) Rabbit pAb	Recognizes the ~82 kDa eIF-2Bε protein phosphorylated at Ser^{539} in CHO-T cells transfected with human insulin receptor and treated with insulin. **IB**	PS1017	100 µl	$307
Anti-GM130 (371-990) Rabbit pAb	Recognizes the ~130 kDa GM130 protein in Cos-7 cells. **IB, IC**	CB1008	50 µg	$145

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Anti-GRASP65 Rabbit pAb	Recognizes the ~65 kDa GRASP65 (Golgi reassembly stacking protein) protein in Cos-7 cells. **IB, IC, IF**	CB1011	50 µg	$145
Anti-ICMT (170-279) Rabbit pAb	Recognizes the ~32 kDa human ICMT protein in ICMT-transfected Sf9 insect cells. **IB**	CA1031	100 µl	$319
Anti-Kpnα_2 Rabbit pAb	Recognizes the ~60 kDa Kpnα_2 protein in HeLa cells. **IB, IP**	ST1114	50 µl	$145
Anti-Kpnβ_1 Rabbit pAb	Recognizes the ~97 kDa Kpnβ_1 protein in Jurkat cells. **IB, IP**	ST1102	50 µg	$145
Anti-Nanog Rabbit pAb	Recognizes the ~40 kDa Nanog protein in mouse myeloid and embryonic stem cells. **IB, IP**	SC1000	50 µg	$145
Anti-P115 (588-959) Rabbit pAb	Recognizes the ~111 kDa P115 protein in Cos-7 cells. **IB, IC, IF**	CB1009	50 µg	$145
Anti-Paxillin Mouse mAb (M107)	Recognizes the ~68 kDa paxillin protein in A431 cells. **ELISA, IB, IC, IP**	CB1016	50 µl	$209
Anti-RanBP1 Rabbit pAb	Recognizes the ~29 kDa human RanBP1 protein in HepG2 cells. **IB, IP**	ST1101	50 µg	$145
Anti-TNPO1 Rabbit pAb	Recognizes the ~97 kDa TNPO1 protein in HeLa cells. **IB**	AP1051	50 µl	$145
Anti-WASP Rabbit pAb	Recognizes the ~60 kDa WASP protein in U937 cells. **IB**	ST1113	50 µg	$140
Agonist/Antagonist/Inhibitors and more				
14-3-3β, GST-Fusion, Human, Recombinant, *E. coli*	Recombinant, human 14-3-3β, fused to GST at the N-terminus with a thrombin cleavage site and expressed in *E. coli*. Useful for protein-protein interaction assays and gel overlays. *Purity:≥90% by SDS-PAGE.*	100071	100 µg	$343
14-3-3γ, GST-Fusion, Human, Recombinant, *E. coli*	Recombinant, human 14-3-3γ fused to GST at the N-terminus with a thrombin cleavage site and expressed in *E. coli*. Useful for protein-protein interaction assays and gel overlays. *Purity:≥90% by SDS-PAGE.*	100072	100 µg	$343
AhR Antagonist	A cell-permeable inhibitor of TCDD-induced AhR transcription activity in HepG2 cells *in vitro* (IC_{50} = 30 nM) and prevent TCDD-elicited liver toxicity and wasting syndrome in mice *in vivo*.	182705	10 mg	$130
C5a Receptor Antagonist, W-54011	A potent, specific, and orally active C5a receptor antagonist.	234415	1 mg 5 mg	$92 $284
Casein-α, His•Tag® fusion	Full-length, human, recombinant casein-α protein expressed with N-terminal His•Tag® and S•Tag™ sequences. *Purity: >90% by SDS-PAGE.*	218683	50 µg	$130
PhosphoDetect™ CREB (pSer[133]) ELISA Kit	Detects and quantifies the level of CREB (cAMP-Response Element-Binding protein) phosphorylated at Ser133 in human and mouse cells. *Assay range: 1.6-100 Units/ml.*	CBA072	1 kit	$575
(-)-Deguelin, *Mundulea sericea*	A cell-permeable compound that inhibits mitochondrial bioenergetics (IC_{50} = 6.9 nM for NADH: ubiquinone oxidoreductase activity in bovine heart ETP) and promotes mitochondrial permeability transition.	252740	5 mg	$70
DNA Methyltransferase Inhibitor	A cell-permeable, specific inhibitor of DNA methyltransferases (IC_{50} = 115 nM for CpG methylase M.SssI) and displays anti-proliferative properties.	260920	10 mg	$129
γ-Enolase, His•Tag® fusion	Full-length, recombinant, human γ-enolase expressed in *E. coli* with N-terminal His•Tag® and S•Tag™ sequences. *Purity: >90% by SDS-PAGE.*	524811	50 µg	$78
Ethidium Bromide	Fluorescent dye that produces fluorescent intercalation complexes with DNA. Suitable for use in gel electrophoresis and DNA isolation procedures.	331564	1 g	$80
FBPase-1 Inhibitor	A cell-permeable inhibitor of hFBPase-1 (human fructose-1,6-bisphosphatase) enzymatic activity (IC_{50} = 3.4 µM) by competing at the AMP allosteric binding site.	344267	10 mg	$88
FTI-2148	An imidazolo-containing peptidomimetic that preferentially inhibits protein farnesyltransferase activity (IC_{50} = 820 pM for mammalian, 1.8 nM for *T. brucei* and 15 nM for *P. falciparum*) compared to protein geranylgeranyltransferase-I (IC_{50} > 1.7 µM for mammalian).	344557	500 µg	$199
FTI-2628	A cell-permeable benzyl ester prodrug form of FTI-2148 (Cat. No. 344557) that preferentially inhibits protein farnesyltransferase activity (IC_{50} = 530 nM for mammalian and 1.0 µM for *P. falciparum*) over protein geranylgeranyltransferase-I (IC_{50} > 10 µM for mammalian).	344559	500 µg	$199

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Product	Application	Cat. No.	Size	Price
FSB	A fluorine analog of the amyloidophilic fluorescent probe BSB (Cat. No. 286895) that crosses the blood-brain barrier and displays low toxicity (LD_{50} > 80 mg/kg). Suitiable for non-invasive amyloid visualization in living transgenic Tg2576 mice by using ^{19}F and ^{1}H-MRI (Magnetic Resonance Imaging). Also useful for staining plaques and neurofibrillary tangles in brain tissue sections of Alzheimer's diseased patients with improved sensitivity, and reduced background.	344101	5 mg	$199
FTY720	A cell-permeable and an immunosuppressive agent that displays lymphocyte sequestration properties. Reported to be phosphorylated by sphingosine kinase to FTY720-P, which has been shown to potently stimulate GTPγS binding activity in S1P-transfected CHO cells (EC_{50} = 210 pM, 4.9 nM, 4.3 nM, and 1 nM for S1P1, S1P3, S1P4 and S1P5, respectively).	344597	1 mg	$145
Glutaredoxin-S_2, *E. coli*	Native glutaredoxin-S_2 isolated from *E. coli*. Useful as a general disulfide reductant for the *in vitro* study of protein folding mechanisms and has been demonstrated to work in conjunction with protein disulfide isomerase to enhance refolding of scrambled RNase A and RNase T1.	354406	1 mg	$401
Glycogen Phosphorylase Inhibitor	A cell-permeable, potent, and AMP-competitive inhibitor of glycogen phosphorylase (GP; IC_{50} = 53 nM).	361515	1 mg	$75
Imiquimod	An imidazoquinoline compound that acts as a potent immunomodulator and displays anti-angiogenic, anti-viral and anti-inflammatory properties.	401020	250 mg	$130
Lipocortin-I, His•Tag® fusion	Full-length, recombinant, human, lipocortin-I expressed in *E. coli* with N-terminal His•Tag® and S•Tag™ sequences. This preparation is qualified for use as a substrate for protein tyrosine kinases in *in vitro* assays. *Purity: >90% by SDS-PAGE.*	437621	50 µg	$78
Lipocortin-II, His•Tag® fusion	Full-length, recombinant, human, lipocortin-II expressed in *E. coli* with N-terminal His•Tag® and S•Tag™ sequences. This preparation is qualified for use as a substrate for protein tyrosine kinases in *in vitro* assays. *Purity: >90% by SDS-PAGE.*	437622	50 µg	$78
LXRα/β Agonist	A cell-permeable, a potent, and specific liver X receptor (LXR) dual agonist (EC_{50} = 50 nM and 40 nM for the recruitment of SRC1 to LXRα and LXRβ, respectively).	440165	10 mg	$145
MIF Antagonist, ISO-1	A cell-permeable compound that inhibits MIF tautomerase activity by binding to its catalytic active site (IC_{50} = 7 µM for D-dopachrome tautomerase) and suppresses the production of TNFα, PGE_2 and COX-2 in human monocytes, and arachidonic acid in RAW 264.7 macrophages.	475837	5 mg	$85
Na^+/H^+ Exchanger Isoform-1 Inhibitor	A cell-permeable compound that inhibits NHE-1-mediated pH recovery after acidosis in PS120 cells (IC_{50} = 2.0 µM). Shown exhibit cardioprotective efficacy both in an isolated rat heart ischemia model *in vitro* and in a rat myocardial infarction model *in vivo*.	567500	5 mg	$94
pCAF Histone Acetyl Transferase, Human, Recombinant, *E. coli*	Recombinant, human, catalytic domain of p300/CREG-binding protein associated factor (pCAF) histone acetyl transferase (HAT) expressed in *E. coli. Specific activity:≥100 pmol/min/µg protein. Purity:≥95% by SDS-PAGE.*	124026	50 µg	$348
Peroxisome Proliferator, Cetaben	A cell-permeable non-fibrate hypolipidemic compound that is reported to inhibit acyl-CoA:cholesterol acyltransferase (ACAT) activity, and lower serum sterols and triglycerides in rats.	516565	10 mg	$102
Protein Arginine N-Methyltransferase Inhibitor, AMI-1	A cell-permeable, potent, specific and non-AdoMet (S-adenosyl-L-methionine, SAM)-competitive inhibitor of protein arginine N-methyltransferases (PRMTs; IC_{50} = 8.81 µM for PRMT1 and 3.03 for yeast-RMT1p) with minimal effect on lysine methyltransferases.	539209	5 mg	$95
InSolution™ Rac1 Inhibitor	A 50 mM (5 mg/185 µl) solution of Rac1 Inhibitor (Cat. No. 553502) in H_2O.	553508	5 mg	$246
InSolution™ Sinefungin	An anti-leishmanial nucleoside antibiotic that acts as an S-adenosyl-L-methionine (SAM, AdoMet) methyltransferase-specific inhibitor.	567051	2 mg	$145
$S1P_2$ Receptor Antagonist, JTE-013	A cell-permeable potent $S1P_2$-selective S1P receptor antagonist (IC_{50} = 17 nM and 22 nM in CHO cells stably transfected with human $S1P_2$ and rat $S1P_2$, respectively; IC_{50} > 10 µM for $S1P_1$ and $S1P_3$).	567736	5 mg	$145
SIRT1/2 Inhibitor IV, Cambinol	A cell-permeable compound that inhibits the NAD-dependent deacetylase activity of hSIRT1 and hSIRT2 (IC_{50} = 56 µM and 59 µM, respectively) in a substrate-, but not NAD-, competitive manner.	566323	5 mg	$145
Virstatin	A cell-permeable compound that inhibits virulence regulation in *Vibrio cholerae*.	677520	25 mg	$97
Wnt Agonist	A potent and selective activator of Wnt signaling. Does not inhibit GSK-3β activity	681665	5 mg	$150
Zinbo-5	A cell-permeable benzoxazole containing tetradendate fluorescent sensor that serves as a selective and sensitive ratiometric imaging probe for Zn^{2+} and Cd^{2+} (by fluorescence $I_{445\,nm}/I_{400\,nm}$ or by absorbance $I_{376\,nm}/I_{337\,nm}$). Forms a 1:1 complex with zinc (K_d = 2.2 nM, pH 7.2) and displays characteristic changes in both excitation and emission spectra with ~5-fold increase in fluorescence quantum yield.	691450*	1 mg	$257

ELISA: enzyme-linked immunosorbent assay; **CIA:** cell inhibition assay; **FC:** flow cytometry; **FS**: frozen sections; **IF:** immunofluorescence; **IB**: immunoblotting; **IC**: immunocytochemistry; **IH**: immunohistochemistry; **IP**: immunoprecipitation; **PS**: paraffin sections

*Sold under license of U.S. patent 7,105,680.

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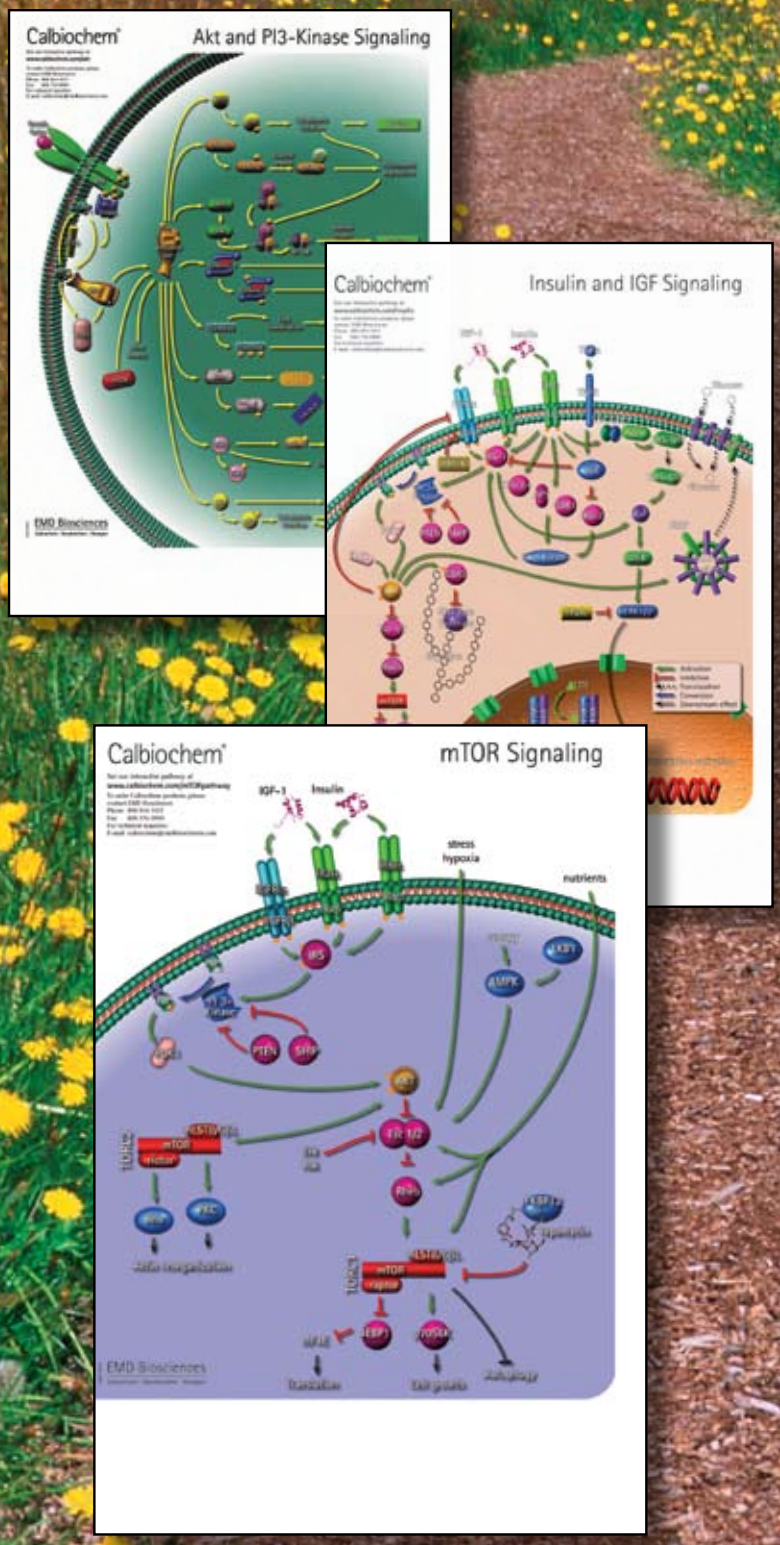

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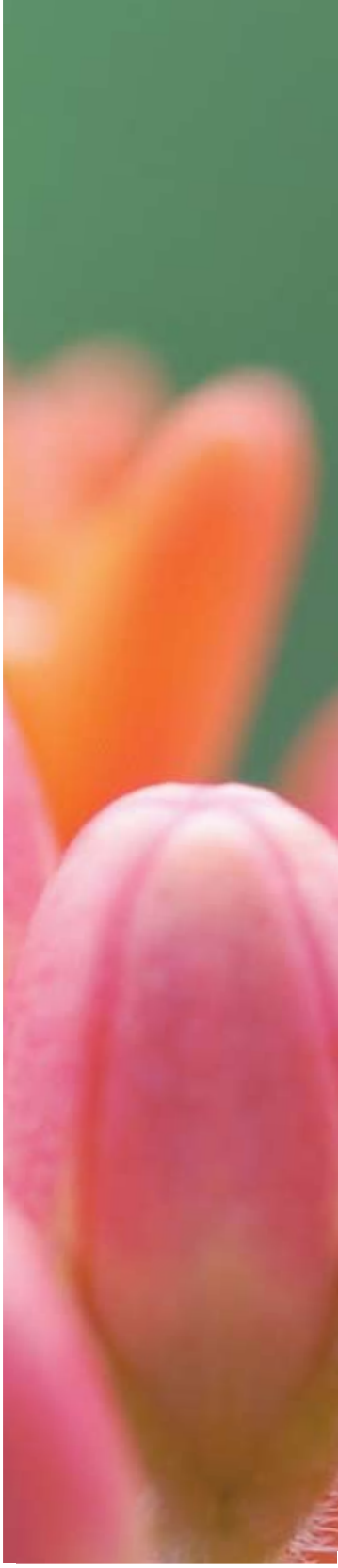

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