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ProductInformation

Anti-phospho-Glycogen Synthase Kinase-3α/β (pTyr $^{279/216}$)
Developed in Rabbit, Affinity Isolated Antibody

Product Number **G 5791**

Product Description

Anti-phospho-Glycogen Synthase Kinase-3α/β (pTyr $^{279/216}$), (GSK-3α/β), was developed in rabbit using a synthetic phosphopeptide derived from regions of human GSK-3α/β protein that contain tyrosine 279/216 as immunogen. It is affinity purified using epitope-specific affinity chromatography. The antibody is preadsorbed to remove any reactivity towards the non-tyrosine phosphorylated GSK-3α/β protein.

Anti-phospho-Glycogen Synthase Kinase-3α/β (pTyr $^{279/216}$) recognizes phosphorylated forms of GSK-3α (51 kDa) and GSK-3β (47 kDa) that contain phosphate on tyrosine 279 and 216 respectively.[1] The antibody does not cross-react with the non-tyrosine phosphorylated GSK-3α/β protein. It detects human, mouse and rat GSK-3α/β. The applications include immunoblotting, ELISA and dot blotting.

GSK-3α and GSK-3β are glycogen synthase kinase enzymes. They are involved in the control of regulatory proteins such as glycogen synthase and the transcription factor c-Jun. In addition, they phosphorylate components of neuronal cytoskeleton including Tau and may have a potential role in Alzheimer's disease.[2]

Reagent

The antibody is supplied as a solution in Dulbecco's phosphate buffered saline (without Mg^{2+} and Ca^{2+}), pH 7.3, with 50% glycerol, 1.0 mg/ml BSA (IgG and protease free) and 0.05% sodium azide.

Storage/Stability

Store at –20 °C. Due to the presence of 50% glycerol the antibody will remain in solution. Working dilution samples should be discarded if not used within 12 hours. The antibody is stable for at least 6 months when stored appropriately.

Precautions and Disclaimer

Due to the sodium azide content, a material safety data sheet (MSDS) for this product has been sent to the attention of the safety officer of your institution. Consult the MSDS for information regarding hazardous and safe handling practices.

Product Profile

A recommended working dilution of 1:1000 is determined for immunoblotting using MCF-7 cell extract. As a positive control, 3T3-L1 cells were serum starved for 3 hours, then stimulated with 100 nM insulin or 100 ng/ml IGF-1 for 5 minutes prior to making the extract. Data demonstrates that only phosphopeptide corresponding to the region containing tyrosine 279 and 216 blocks the antibody signal, which confirms the specificity of the Anti-phospho-Glycogen Synthase Kinase-3α/β (pTyr $^{279/216}$) for this phoshosphorylated residue.

Note: In order to obtain best results in different techniques and preparations we recommend determining optimal working concentration by titration test.

References

1. Brady, M.J., et al., J. Biol. Chem., **273**, 10228-10233 (1998).
2. Lee, K.F., et al., Brain Res. Mol. Brain Res., **84,** 150-157 (2000).

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