

Product Information

Platelet Derived Growth Factor from porcine platelets cell culture tested

Catalog Number **P8953**
Storage Temperature -20°C

Synonym: PDGF

Product Description

Platelet-Derived Growth Factor is the principal mitogen found in mammalian serum and is released from platelets during clot formation.¹ Porcine PDGF consists primarily of PDGF-BB homodimers.² It has approximately 70-80% homology with the B-chain of human PDGF. Human and porcine PDGF bind to the same receptors and produce the same spectrum of biological effects. PDGF elicits multifunctional actions with a variety of cells, including mitogenesis of mesoderm-derived cells, increased extracellular matrix synthesis, and chemotaxis and activation of neutrophils, monocytes and fibroblasts. PDGF is mitogenic for dermal and tendon fibroblasts, vascular smooth muscle cells, glial cells and chondrocytes.

The biological activity of porcine PDGF was tested in culture by measuring its ability to stimulate ^3H -thymidine incorporation in the NR6R-3T3 fibroblasts.³

The EC_{50} is defined as the effective concentration of growth factor that elicits a 50% increase in cell growth in a cell based bioassay.

Reagent

Lyophilized from a $0.2\text{ }\mu\text{m}$ -filtered solution in 40% acetonitrile and 0.1% trifluoroacetic acid, pH 2.0. .

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

Store at -20°C .

For extended storage, freeze in working aliquots at -70°C or -20°C . Repeated freezing and thawing is not recommended.

Reconstitution

Reconstitute the contents of the vial using $0.2\text{ }\mu\text{m}$ -filtered 4 mM HCl, containing 1 mg/ml of high purity BSA to make a PDGF stock solution of 1 $\mu\text{g}/\text{ml}$. Completely rinse the walls of the vial.

If it is necessary to have a carrier-free solution of PDGF, reconstitute the vial with 1 ml of sterile-filtered 1 M acetic acid. After the addition of the acetic acid, vortex and rotate the vial to rinse the walls. The solution may then be centrifuged at 1000 rpm. Prior to long-term storage or addition of this concentrated acidic stock solution to cells in culture, dilute portions of the concentrated stock solution with $0.2\text{ }\mu\text{m}$ -filtered 4 mM HCl containing 1 mg/ml of high-purity BSA to a concentration of 1 $\mu\text{g}/\text{ml}$.

Product profile

Assay: $\geq 97\%$ (SDS-PAGE)
Endotoxin tested

References

1. Ross, R., et al., *Proc. Natl. Acad. Sci. USA*, **71**, 1207 (1974).
2. Stroobant, P., and Waterfield, M. D. *EMBO J.*, **3**, 2963 (1984).
3. Raines, E. W. and Ross, R., *Methods Enzymol.*, **109**, 749 (1985).

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