Technical Data Sheet

Recombinant human/mouse PDGF-AA protein

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Lot Specific Information

Lot Number: **Lot Specific***

Total Protein: **Lot Specific***

*This information will be noted on the certificate of analysis that ships with this product.

Shelf Life

This product has a guaranteed shelf-life of one year from the date of customer receipt when stored as recommended.

Product Information

Catalog Number:	**RP060**
Protein Identity:	Confirmed identity with expected mass, determined by mass spectrometry
Reported Applications:	Differentiation of neural progenitor cells into oligodendrocyte precursor cells
Formulation:	Lyophilized, white powder
Endotoxin:	≤0.5 EU/mg, LAL assay
Purity:	≥95%; SDS-PAGE
Reconstitution:	Resuspend in sterile-filtered water at >50 µg/ml. Once reconstituted, store in single-use aliquots to avoid freeze-thaw cycles. Store reconstituted protein at -20 °C to -80 °C for a maximum of 12 months or until the expiry date if sooner.
Sterility:	Sterile
Production:	Microbial. Expressed in E. coli
Molecular Weight:	29 kDa
Bioactivity Assay:	No significant difference between EC50 of reference and test lots
Mycoplasma:	Negative

Description

Recombinant human/mouse PDGF-AA protein (platelet-derived growth factor AA) is a homodimeric member of the PDGF/VEGF family, produced by platelets, where it is stored in α-granules and released on activation, and by endothelial cells, fibroblasts, vascular smooth muscle cells, osteoblasts, glia and neurons. PDGFs are homo- or heterodimers of PDGF-A, -B, -C and -D chains that act through two receptors, PDGFR-α, which binds all PDGF dimers except PDGF-DD, and PDGFR-β, which binds PDGF-BB and PDGF-DD, activating downstream PI3K, MAPK and STAT3 signaling. PDGF plays important roles in embryonic development, cell proliferation, cell migration and angiogenesis, and is a potent mitogen for cells of mesenchymal origin such as fibroblasts, glial cells and vascular smooth muscle cells. In stem cell research, PDGF-AA is commonly used to differentiate human pluripotent stem cell (hPSC)-derived neural progenitor cells into oligodendrocyte precursor cells, making it a key reagent for neural differentiation and glial biology research. This protein is optimized for in vivo and functional applications: low-endotoxin, tag-free, and carrier-free, supporting reproducible performance in demanding preclinical and bioactivity studies. A GMP-grade version of this protein is available for cell and gene therapy manufacturing. Contact us at customerservice@bioxcell.com for details. Species reactivity: human. Species similarity: mouse - 95%, rat - 95%, bovine - 91%, porcine - 89%.

Storage

Store at the stock concentration at 4°C . **Do not freeze.**

It is not uncommon for a floccule or precipitate to appear during storage. The floccule is typically buffer salts precipitating out of solution or a small bit of protein aggregation. For information on how to remove floccules or precipitates see our FAQ's at https://bioxcell.com/faqs.

Store lyophilized protein between -20 °C and -80 °C until the date of expiry. Avoid freeze-thaw cycles

Conditions: For research use only. Not for use in diagnostic or therapeutic

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