Technical Data Sheet

Recombinant human activin AB 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:	**RP106**
Protein Identity:	Confirmed identity with expected mass, determined by mass spectrometry
Reported Applications:	Drug discovery in metabolism Wound healing and fibrosis
Formulation:	Lyophilized, white powder
Endotoxin:	≤0.5 EU/mg, LAL assay
Purity:	≥95%; SDS-PAGE
Reconstitution:	Resuspend in 10 mM HCl (Reconstitution Buffer A) 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:	25.7 kDa (dimer)
Bioactivity Assay:	No significant difference between EC50 of reference and test lots
Mycoplasma:	Negative

Description

Recombinant human activin AB protein is a disulfide-linked heterodimer of one inhibinβA and one inhibinβB chain and a secreted member of the transforming growth factor-beta (TGF-β) family, whose activin class spans activins A, B, C and E and extends to GDF-8 (myostatin) and GDF-11 (BMP-11). The inhibinβ chains are homologous, with 63% identity between A and B and 50% with C, and combine as homodimers or heterodimers to form functional ligands that regulate growth, differentiation and proliferation in a wide range of cell types. Activins signal through the type 1 activin receptor-like kinases ALK4 and ALK7 to activate the SMAD2/3 pathway, as distinct from the SMAD1/5/8 pathway engaged via ALK1, ALK2, ALK3 and ALK6. Activins A and B mediate activation or expression of JNK, iNOS and PARP1 and activation of hepatic stellate cells, driving liver fibrosis, activin overexpression improves insulin sensitivity and reduces fat via FGF-21 and PDE4B in diabetes models, and activin B promotes JNK/ERK-driven migration of adipose-derived stem cells in wound healing, making activin AB a valuable reagent for TGF-β signaling, fibrosis and metabolic 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. Species reactivity: human.

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

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