

Synonym

ACTRIIB, ActR-IIB, HTX4

Source

Human Activin RIB & Activin RIIB Protein, Fc Tag&Fc Tag(ACB-H5253) is expressed from human 293 cells (HEK293). It contains AA Gly 25 - Glu 126 & Gly 20 - Pro 133 (Accession # [P36896-1](#) & [Q13705-1](#)).

Molecular Characterization

Activin RIB (Gly 25 - Glu 126) P36896-1	Fc(Pro 100 - Lys 330) P01857
Activin RIIB (Gly 20 - Pro 133) Q13705-1	Fc(Pro 100 - Lys 330) P01857

Human Activin RIB & Activin RIIB Protein, Fc Tag&Fc Tag is produced by co-expression of Activin RIB and Activin RIIB, has a calculated MW of 37 kDa & 39.1 kDa. Subunit Activin RIB is fused with a human IgG1 Fc tag at the C-terminus and subunit Activin RIIB is fused with a human IgG1 Fc tag at the C-terminus. The protein migrates as 80-95 kDa and >150 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under non-reducing (NR) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 1.0 EU per µg by the LAL method / rFC method.

Purity

>90% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 µm filtered solution in 50 mM Tris, 100 mM Glycine, 25 mM Arginine, 150 mM NaCl, pH7.5 with trehalose as protectant.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

Storage

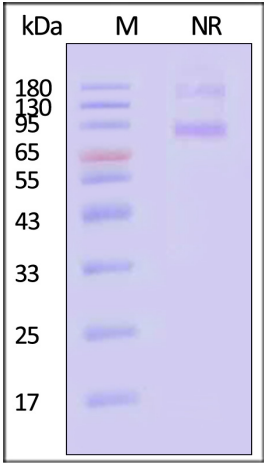
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

- 20°C to -70°C for 12 months in lyophilized state;
- 70°C for 3 months under sterile conditions after reconstitution.

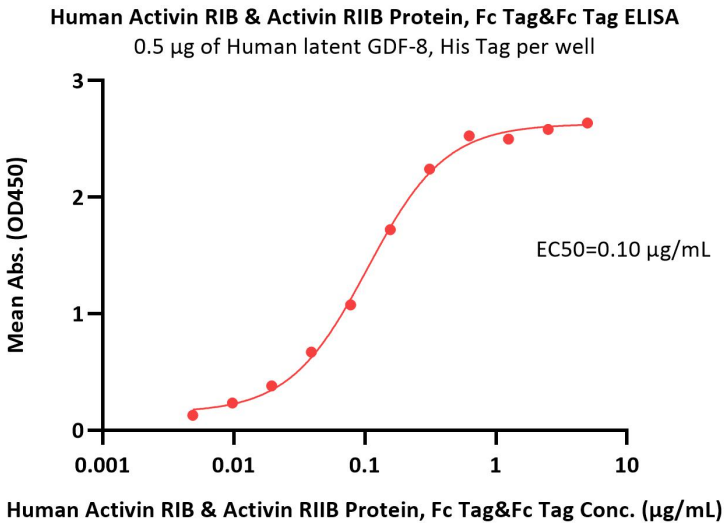
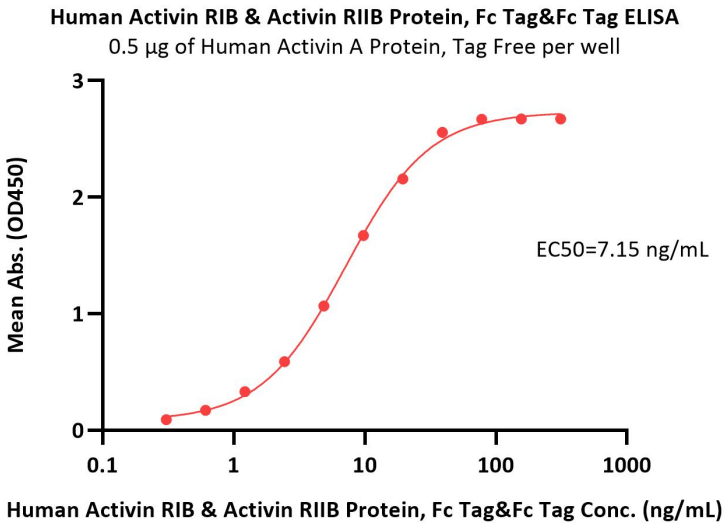
SDS-PAGE



Human Activin RIB & Activin RIIB Protein, Fc Tag&Fc Tag on SDS-PAGE under non-reducing (NR) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With [Star Ribbon Pre-stained Protein Marker](#)).

Bioactivity-ELISA





Immobilized Human Activin A Protein, Tag Free (Cat. No. ACA-H421b) at 5 µg/mL (100 µL/well) can bind Human Activin RIB & Activin RIIB Protein, Fc Tag&Fc Tag (Cat. No. ACB-H5253) with a linear range of 0.3-10 ng/mL (QC tested).

Immobilized Human latent GDF-8, His Tag (Cat. No. GD8-H5243) at 5 µg/mL (100 µL/well) can bind Human Activin RIB & Activin RIIB Protein, Fc Tag&Fc Tag (Cat. No. ACB-H5253) with a linear range of 0.005-0.156 µg/mL (Routinely tested).

Background

Activins are dimeric growth and differentiation factors which belong to the transforming growth factor-beta (TGF-beta) superfamily of structurally related signaling proteins. Activins signal through a heteromeric complex of receptor serine kinases which include at least two type I (I and IB) and two type II (II and IIB) receptors. These receptors are all transmembrane proteins, composed of a ligand-binding extracellular domain with cysteine-rich region, a transmembrane domain, and a cytoplasmic domain with predicted serine/threonine specificity. Type I receptors are essential for signaling; and type II receptors are required for binding ligands and for expression of type I receptors. Type I and II receptors form a stable complex after ligand binding, resulting in phosphorylation of type I receptors by type II receptors. Type II receptors are considered to be constitutively active kinases. This gene encodes activin A type IIB receptor, which displays a 3- to 4-fold higher affinity for the ligand than activin A type II receptor.

