Biotinylated Human/Cynomolgus Activin RIIB/ACVR2B Protein

Cat. No. ARB-HM42BB

Description

Source	Recombinant Biotinylated Human/Cynomolgus Activin RIIB/ACVR2B Protein is expressed from HEK293 with His tag and Avi tag at the C-terminus.
	It contains Ser19-Thr137 (Human) / Ser40-Thr158 (Cynomolgus).
Accession	Q13705-1(Human) / XP_045242398.1(Cynomolgus)
Molecular Weight	The protein has a predicted MW of 16.56 kDa. Due to glycosylation, the protein migrates to 33-43 kDa based on Bis-Tris PAGE result.
Endotoxin	Less than 1EU per μg by the LAL method.
Purity	> 95% as determined by Bis-Tris PAGE
	> 95% as determined by HPLC

Formulation and Storage

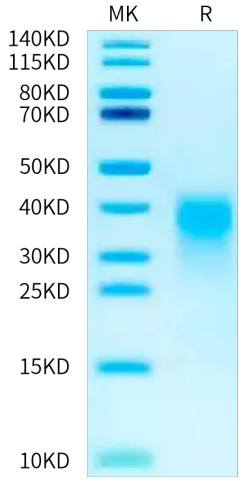
Formulation	Lyophilized from 0.22 μm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
Reconstitution	Centrifuge the tube before opening. Reconstituting to a concentration more than 100 μg/ml is recommended. Dissolve the lyophilized protein in distilled water.
Storage	-20 to -80°C for 12 months as supplied from date of receipt.-80°C for 3 months after reconstitution.Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.

Background

ActRIIB (activin receptor type-2B) is an activin receptor subtype constitutively expressed in the whole body, playing a role in cellular proliferation, differentiation, and metabolism. For its various physiological activities, ActRIIB interacts with activin and multiple other ligands including myostatin (MSTN), growth differentiation factor 11 (GDF11), and bone morphogenetic protein 9 (BMP9).

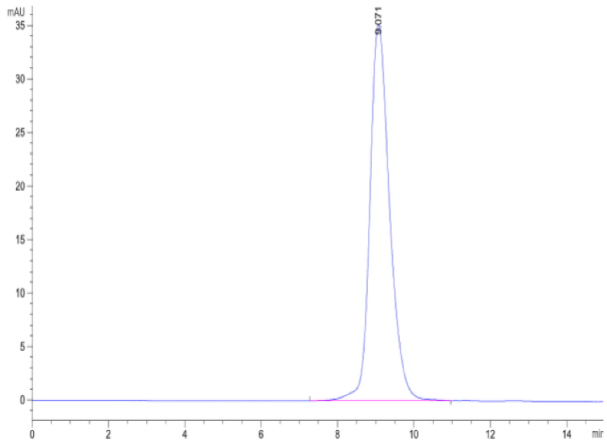
Assay Data

Bis-Tris PAGE



Biotinylated Human/Cynomolgus Activin RIIB on Bis-Tris PAGE under reduced condition. The purity is greater than 95%.

SEC-HPLC



The purity of Biotinylated Human/Cynomolgus Activin RIIB is greater than 95% as determined by SEC-HPLC.

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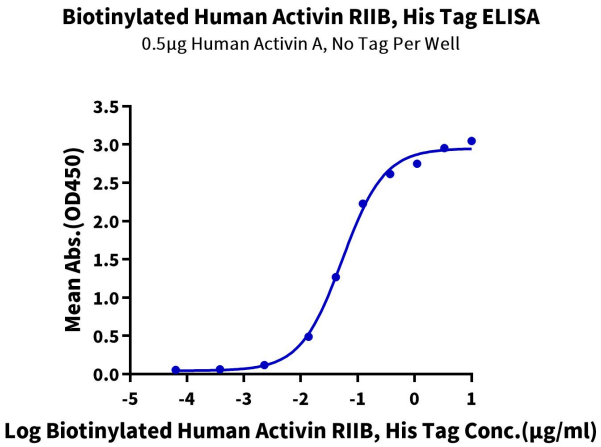
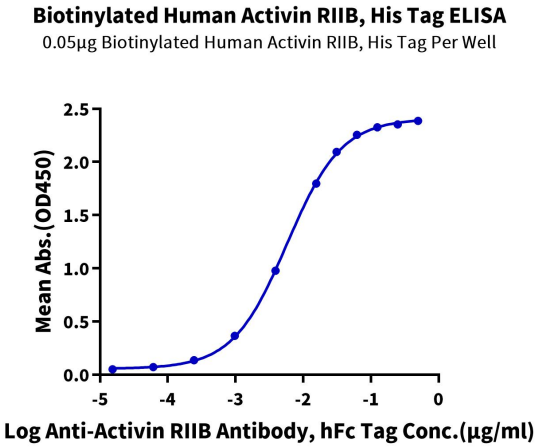
Assay Data

ELISA Data



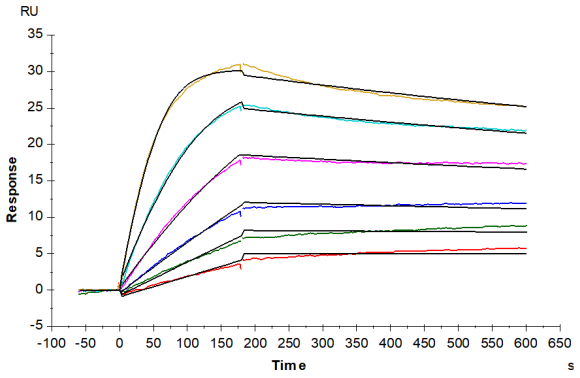
Immobilized Human Activin A, No Tag at 5μg/ml (100μl/well) on the plate. Dose response curve for Biotinylated Human/Cynomolgus Activin RIIB, His Tag with the EC50 of 53.8ng/ml determined by ELISA (QC Test).

ELISA Data



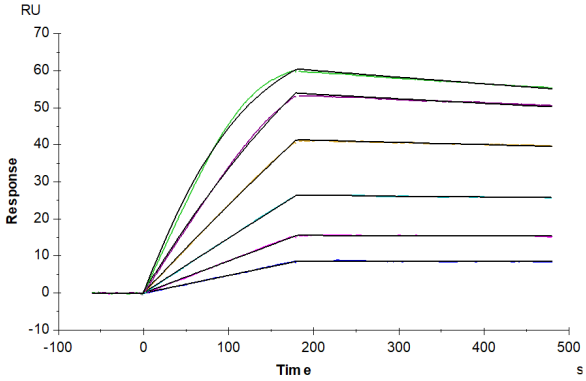
Immobilized Biotinylated Human/Cynomolgus Activin RIIB, His Tag at 0.5μg/ml (100μl/well) on the streptavidin precoated plate (5μg/ml). Dose response curve for Anti-Activin RIIB Antibody, hFc Tag with the EC50 of 5.8ng/ml determined by ELISA.

SPR Data



Biotinylated Human/Cynomolgus Activin RIIB, His Tag captured on CM5 Chip via Anti-His Antibody can bind Human Activin A, No Tag with an affinity constant of 55.35 pM as determined in SPR assay (Biacore T200).

SPR Data



Biotinylated Activin RIIB, His Tag captured on CM5 Chip via Streptavidin can bind Human/Mouse/Rat GDF-8, No Tag with an affinity constant of 0.24 nM as determined in SPR assay (Biacore T200).

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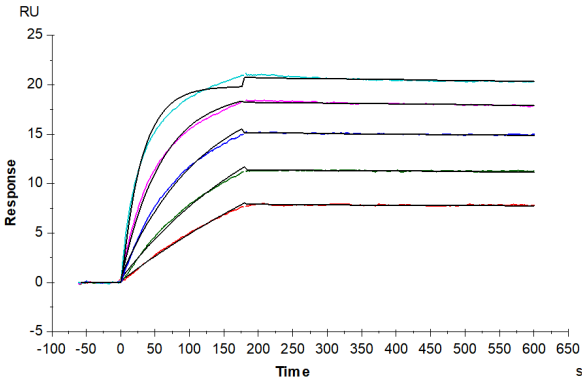
Assay Data

SPR Data



Biotinylated Human/Cynomolgus Activin RIIB, His Tag immobilized on CM5 Chip can bind Anti-Activin RIIB Antibody, hFc Tag with an affinity constant of 6.44 pM as determined in SPR assay (Biacore T200).