Human/Cynomolgus Activin RIIB/ACVR2B Protein, Ultra Low Endotoxin

Cat. No. ARB-HM12B-UL

Description

Source	Recombinant Human/Cynomolgus Activin RIIB/ACVR2B Protein is expressed from HEK293 with His 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 14.75 kDa. Due to glycosylation, the protein migrates to 25-45 kDa based on Bis-Tris PAGE result.
Endotoxin	Less than 0.01 EU per μg by the LAL method.
Purity	> 95% as determined by Bis-Tris PAGE
	> 95% as determined by HPLC

Formulation and Storage

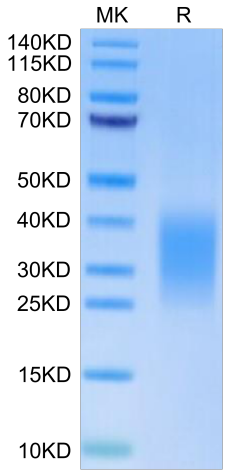
Formulation	Lyophilized from 0.22 μm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
Reconstitution	Dissolve the lyophilized protein in distilled water. Please refer to the Certificate of Analysis for detailed instructions.
Storage	-20 to -80°C for 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).

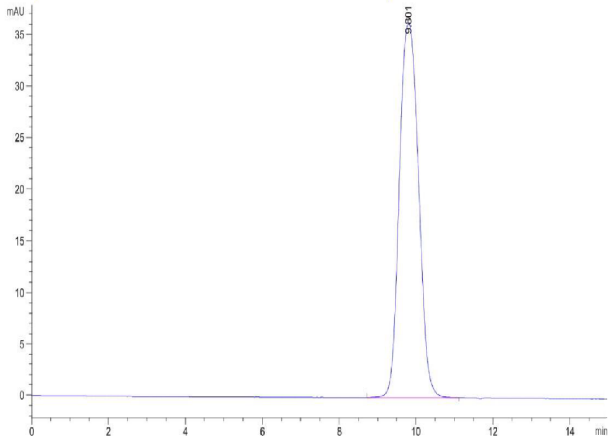
Assay Data

Bis-Tris PAGE



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

SEC-HPLC



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

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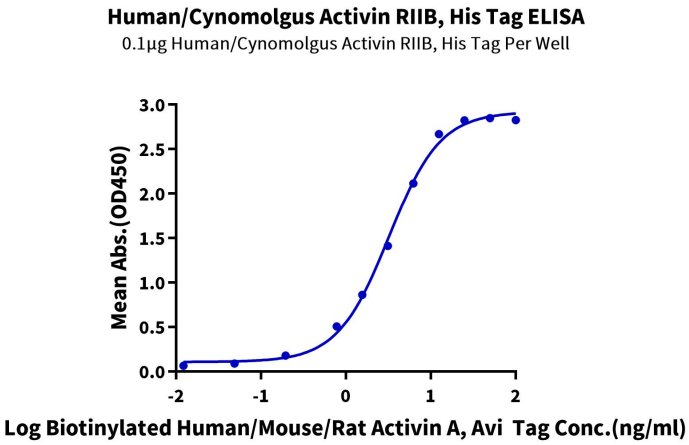
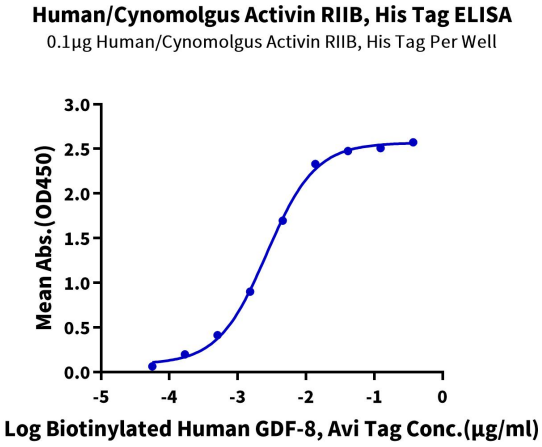
Assay Data

ELISA Data



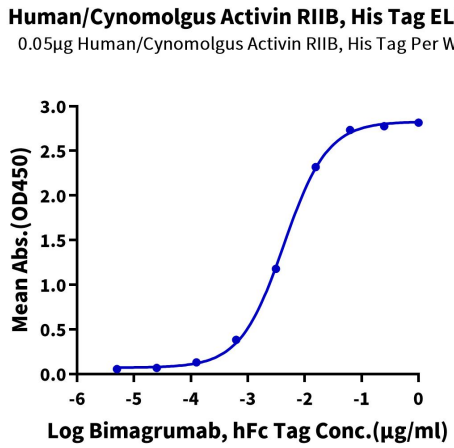
Immobilized Human/Cynomolgus Activin RIIB, His Tag at 1μg/ml (100μl/well) on the plate. Dose response curve for Biotinylated Human/Mouse/Rat Activin A, Avi Tag (Cat. ACV-HM401B) with the EC50 of 3.2ng/ml determined by ELISA.

ELISA Data



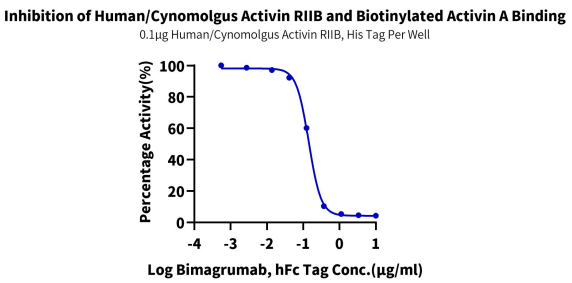
Immobilized Human/Cynomolgus Activin RIIB, His Tag at 1μg/ml (100μl/well) on the plate. Dose response curve for Biotinylated Human GDF-8, Avi Tag with the EC50 of 2.7ng/ml determined by ELISA.

ELISA Data



Immobilized Human/Cynomolgus Activin RIIB, His Tag at 0.5 μg/ml (100 μl/well) on the plate. Dose response curve for Bimagrumab with the EC50 of 4.3 ng/ml determined by ELISA.

Blocking Data



Serial dilutions of Bimagrumab were added into Human/Cynomolgus Activin RIIB, His Tag : Biotinylated Human Activin A, Avi Tag binding reactioins. The half maximal inhibitiory concentration (IC50) is 0.14μg/ml.

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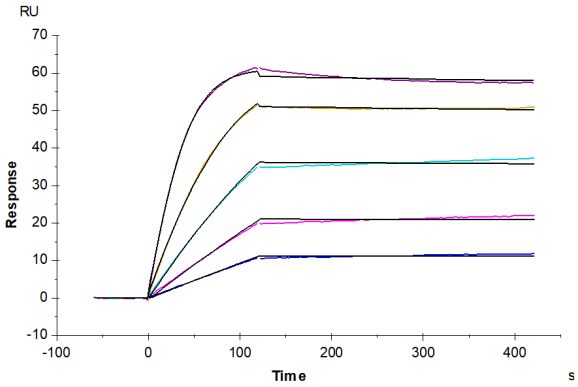
Assay Data

SPR Data



Human/Cynomolgus Activin RIIB, His Tag captured on CM5 Chip via anti-his antibody can bind Human Activin A with an affinity constant of 27.92 pM as determined in SPR assay (Biacore T200).

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