

# Human Activin RIIB/ACVR2B Protein

Cat. No. ARB-HM12B

## Description

<b>Source</b>	Recombinant Human Activin RIIB/ACVR2B Protein is expressed from HEK293 with His tag at the C-Terminus. It contains Ser19-Thr137.
<b>Accession</b>	Q13705-1
<b>Molecular Weight</b>	The protein has a predicted MW of 14.75 kDa. Due to glycosylation, the protein migrates to 25-45 kDa based on Tris-Bis PAGE result.
<b>Endotoxin</b>	Less than 1EU per $\mu\text{g}$ by the LAL method.
<b>Purity</b>	> 95% as determined by Tris-Bis PAGE > 95% as determined by HPLC

## Formulation and Storage

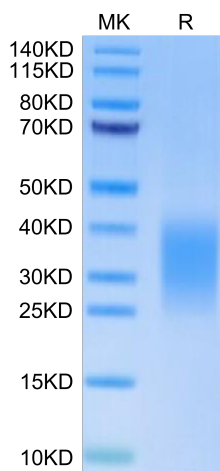
<b>Formulation</b>	Lyophilized from 0.22 $\mu\text{m}$ filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
<b>Reconstitution</b>	Centrifuge the tube before opening. Reconstituting to a concentration more than 100 $\mu\text{g}/\text{ml}$ is recommended. Dissolve the lyophilized protein in distilled water.
<b>Storage</b>	-20 to -80°C for 12 months as supplied from date of receipt. -80°C for 3-6 months after reconstitution. 2-8°C for 2-7 days 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).

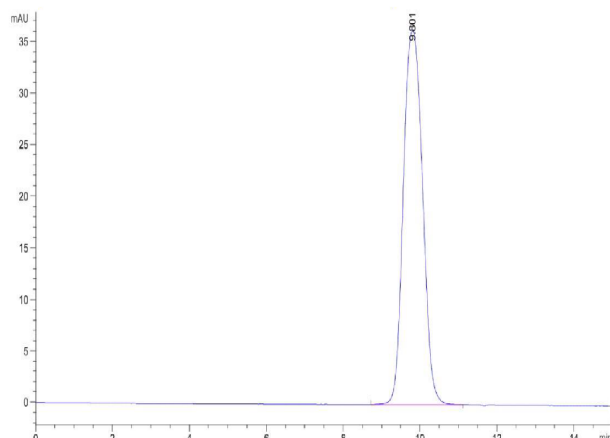
## Assay Data

### Tris-Bis PAGE



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

### SEC-HPLC



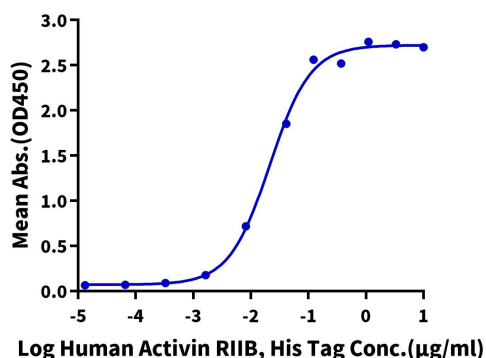
The purity of Human Activin RIIB is greater than 95% as determined by SEC-HPLC.

Assay Data

ELISA Data

**Human Activin RIIB, His Tag ELISA**

0.1µg Human Activin A, No Tag Per Well

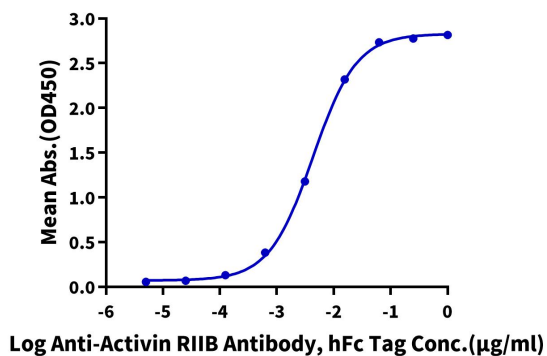


Immobilized Human Activin A, No Tag at 1µg/ml (100µl/well) on the plate. Dose response curve for Human Activin RIIB, His Tag with the EC50 of 21.4ng/ml determined by ELISA (QC Test).

ELISA Data

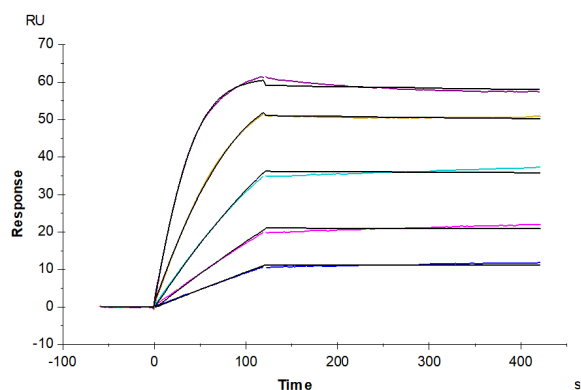
**Human Activin RIIB, His Tag ELISA**

0.05µg Human Activin RIIB, His Tag Per Well



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

SPR Data



Human 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).