

# Human Activin RIIA/ACVR2A Protein

Cat. No. ARA-HM22A

## Description

<b>Source</b>	Recombinant Human Activin RIIA/ACVR2A Protein is expressed from HEK293 with hFc tag at the C-terminus. It contains Ala20-Pro135.
<b>Accession</b>	P27037-1
<b>Molecular Weight</b>	The protein has a predicted MW of W 39.35 kDa. Due to glycosylation, the protein migrates to 55-65 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

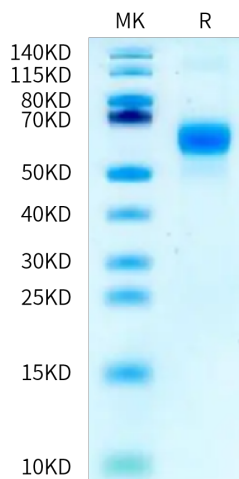
<b>Formulation</b>	Lyophilized from 0.22 $\mu\text{m}$ filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
<b>Reconstitution</b>	Centrifuge the tube before opening. Reconstituting to a concentration more than 100 $\mu\text{g}/\text{ml}$ is recommended. 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

Activin A receptor type 2A (ACVR2A) is a membrane receptor in the transforming growth factor- beta (TGF- $\beta$ ) signaling pathway, which is involved in the regulation of cell proliferation, migration, and apoptosis. Loss of ACVR2A has an important role in cancer progression and distant metastasis and may serve as a prognostic marker in patients with colon cancer.

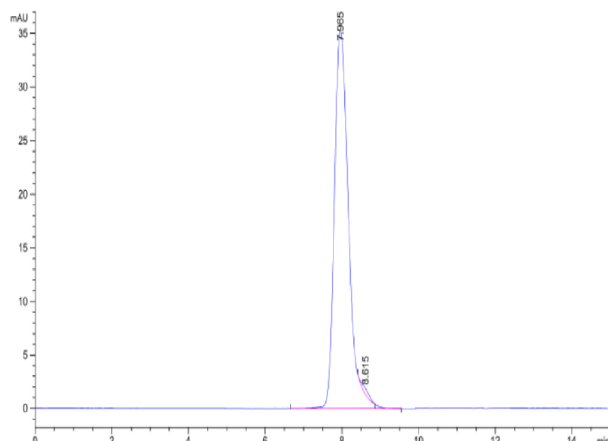
## Assay Data

### Tris-Bis PAGE



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

### SEC-HPLC



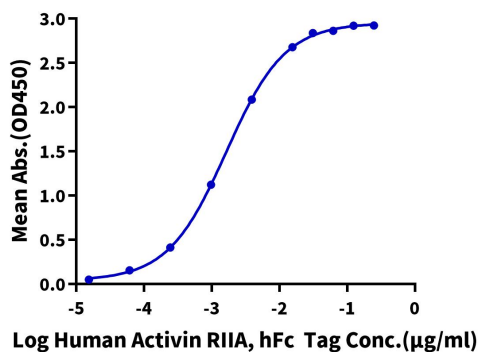
The purity of Human Activin RIIA is greater than 95% as determined by SEC-HPLC.

Assay Data

ELISA Data

Human Activin RIIA, hFc Tag ELISA

0.1µg Human Activin A, No Tag Per Well

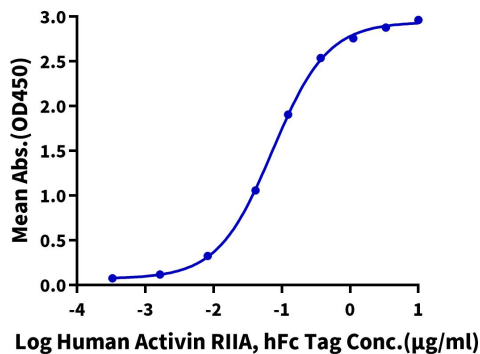


Immobilized Human Activin A, No Tag at 1µg/ml (100µl/well) on the plate. Dose response curve for Human Activin RIIA, hFc Tag with the EC50 of 1.6ng/ml determined by ELISA (QC Test).

ELISA Data

Human Activin RIIA, hFc Tag ELISA

0.5µg Human/Mouse/Rat GDF-8, No Tag Per Well



Immobilized Human/Mouse/Rat GDF-8, No Tag at 5µg/ml (100µl/well) on the plate. Dose response curve for Human Activin RIIA, hFc Tag with the EC50 of 73.4ng/ml determined by ELISA.