

# Human/Cynomolgus Activin RIIA/ACVR2A Protein

Cat. No. ARA-HM12A

## Description

<b>Source</b>	Recombinant Human/Cynomolgus Activin RIIA/ACVR2A Protein is expressed from HEK293 with His tag at the C-Terminus. It contains Ala20-Pro135.
<b>Accession</b>	P27037-1(Human) / G7PKJ4(Cynomolgus)
<b>Molecular Weight</b>	The protein has a predicted MW of 14.50 kDa. Due to glycosylation, the protein migrates to 30-45 kDa based on Bis-Tris PAGE result.
<b>Endotoxin</b>	Less than 1 EU per $\mu\text{g}$ by the LAL method.
<b>Purity</b>	>95% as determined by Bis-Tris PAGE >95% as determined by HPLC

## Formulation and Storage

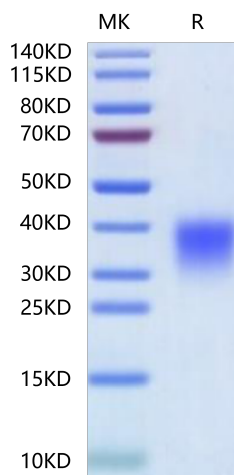
<b>Formulation</b>	Lyophilized from 0.22 $\mu\text{m}$ filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
<b>Reconstitution</b>	Centrifuge the tube before opening. Reconstituting to a concentration more than 100 $\mu\text{g}/\text{ml}$ is recommended.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

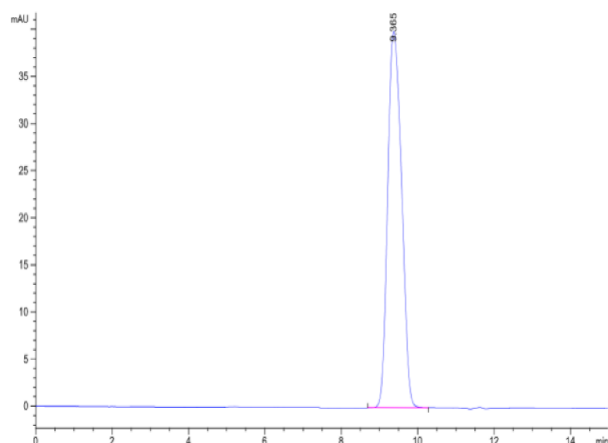
## Assay Data

### Bis-Tris PAGE



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

### SEC-HPLC

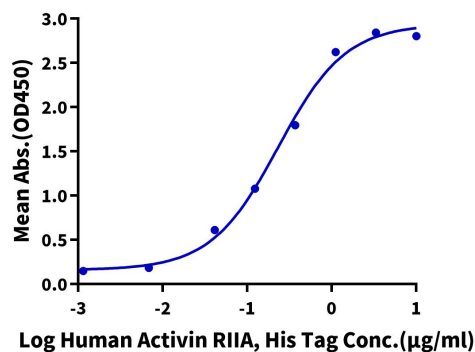


The purity of Human/Cynomolgus Activin RIIA is greater than 95% as determined by SEC-HPLC.

## Assay Data

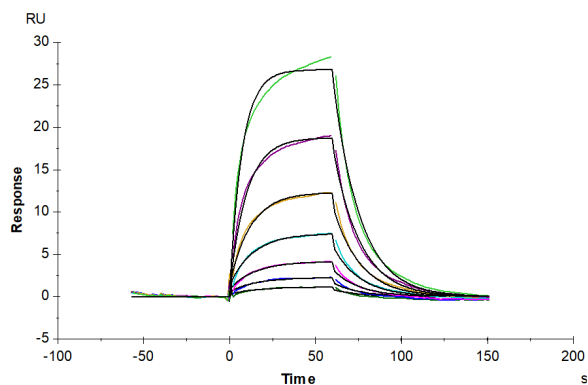
## ELISA Data

## Human Activin RIIA, His Tag ELISA

0.5  $\mu$ g Human Activin A, No Tag Per Well

Immobilized Human Activin A, No Tag at 5  $\mu$ g/ml (100  $\mu$ l/well) on the plate. Dose response curve for Human/Cynomolgus Activin RIIA, His Tag with the EC50 of 0.23  $\mu$ g/ml determined by ELISA (QC Test).

## SPR Data



Human/Mouse/Rat GDF-8, No Tag immobilized on CM5 Chip can bind Human/Cynomolgus Activin RIIA, His Tag with an affinity constant of 0.87  $\mu$ M as determined in SPR assay (Biacore T200).