

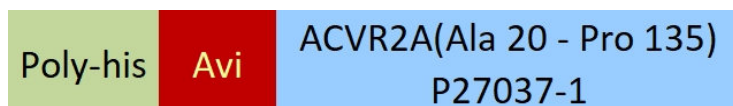
**Synonym**

Activin receptor type IIA,ACTRIIA

**Source**

Biotinylated Human Activin RIIA Protein, His,Avitag(ACA-H82Q3) is expressed from human 293 cells (HEK293). It contains AA Ala 20 - Pro 135 (Accession # [P27037-1](#)).

Predicted N-terminus: His

**Molecular Characterization**

This protein carries a polyhistidine tag at the N-terminus, followed by an Avi tag (Avitag™).

The protein has a calculated MW of 17 kDa. The protein migrates as 28-35 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE) due to glycosylation.

**Labeling**

*Biotinylation of this product is performed using Avitag™ technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin.*

**Protein Ratio**

Passed as determined by the HABA assay / binding ELISA.

**Endotoxin**

Less than 1.0 EU per µg by the LAL method.

**Purity**

&gt;90% as determined by SDS-PAGE.

**Formulation**

Lyophilized from 0.22 µm filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

**Reconstitution**

Please see Certificate of Analysis for specific instructions.

*For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.*

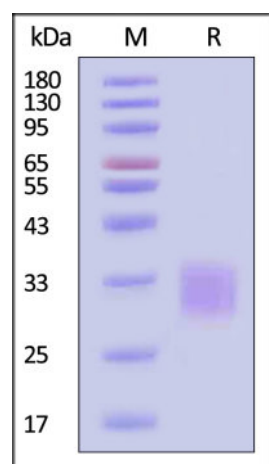
**Storage**

For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*Please avoid repeated freeze-thaw cycles.*

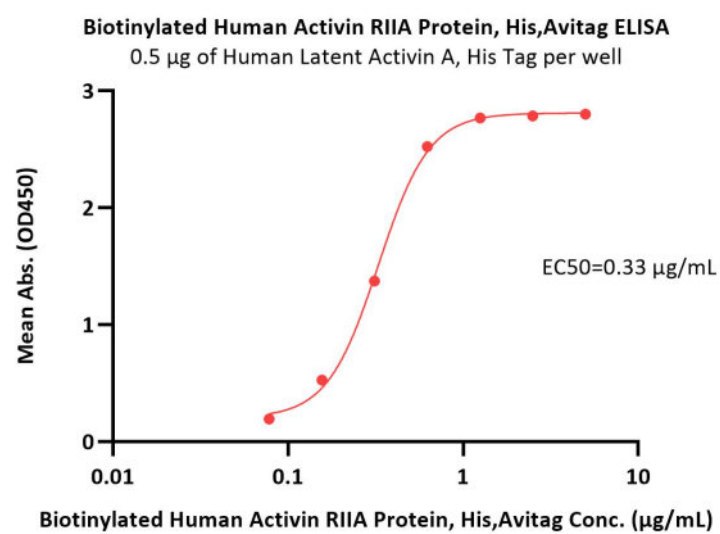
This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

**SDS-PAGE**

Biotinylated Human Activin RIIA Protein, His,Avitag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With [Star Ribbon Pre-stained Protein Marker](#)).

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Immobilized Human Latent Activin A, His Tag (Cat. No. ACA-H424x) at 5 µg/mL (100 µL/well) can bind Biotinylated Human Activin RIIA Protein, His,Avitag (Cat. No. ACA-H82Q3) with a linear range of 0.078-1.25 µg/mL (QC tested).

## Background

Activin receptor type-2A (ACVR2A) is also known as Activin receptor type IIA, ACTR-IIA, ACTRIIA and ACVR2, which is single-pass type I membrane protein. ACVR2A belongs to the protein kinase superfamily, TKL Ser/Thr protein kinase family and TGFB receptor subfamily. On ligand binding, ACVR2A can form a receptor complex consisting of two type II and two type I transmembrane serine/threonine kinases. Type II receptors phosphorylate and activate type I receptors which autophosphorylate, then bind and activate SMAD transcriptional regulators. ACVR2A is Receptor for activin A, activin B and inhibin A as well. Several type I activin receptors have been identified and bind to different activins with different affinities.

## Clinical and Translational Updates

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