

Rabbit Activin RIIA / ACVR2A Protein, His Tag (MALS verified)

Catalog # ACA-R52H3



BIOSYSTEMS
Acro

Surprise Inside!

Synonym

Activin receptor type IIA, ACTRIIA

Source

Rabbit Activin RIIA Protein, His Tag (ACA-R52H3) is expressed from human 293 cells (HEK293). It contains AA Ala 20 - Asn 138 (Accession # [A0A5F9CMM0](#)).

Predicted N-terminus: Ala 20

Molecular Characterization

ACVR2A(Ala 20 - Asn 138) A0A5F9CMM0	Poly-his
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This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 15.8 kDa. The protein migrates as 27-35 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 1.0 EU per µg by the LAL method / rFC method.

Purity

>95% as determined by SDS-PAGE.

>95% as determined by SEC-MALS.

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.

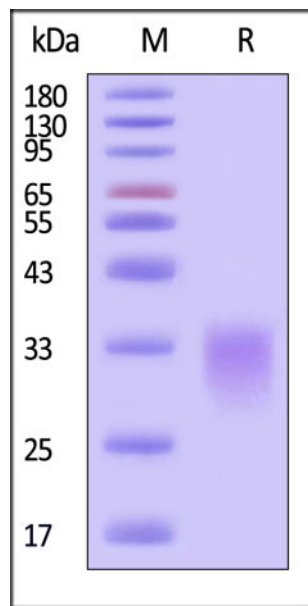
This product is stable after storage at:

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

ACRO Quality Management System

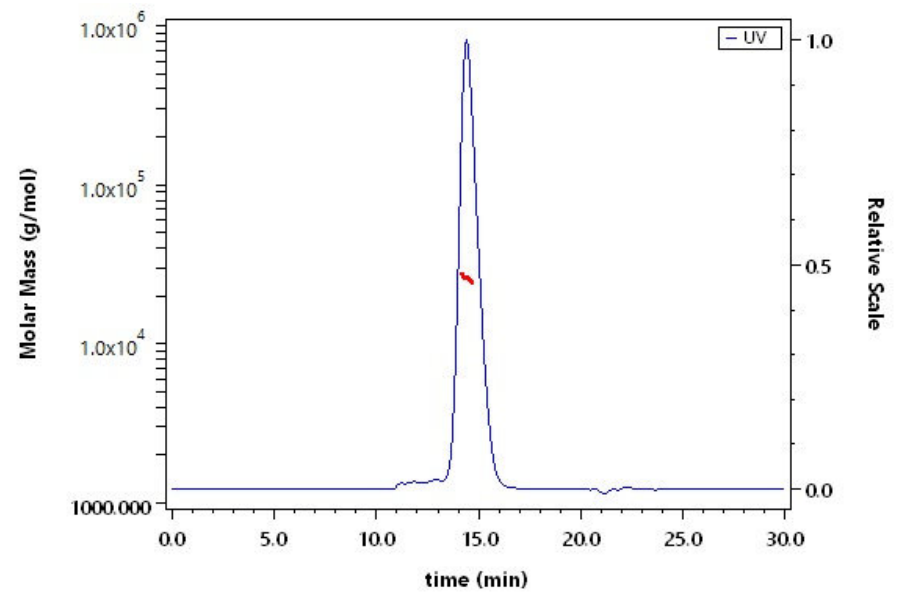
- [QMS\(ISO, GMP\)](#)
- [Quality Advantages](#)
- [Quality Control Process](#)

SDS-PAGE



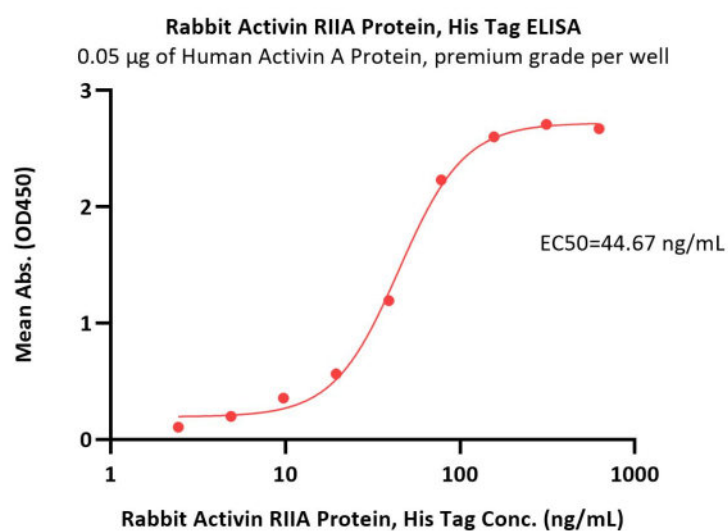
Rabbit Activin RIIA Protein, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With [Star Ribbon Pre-stained Protein Marker](#)).

SEC-MALS



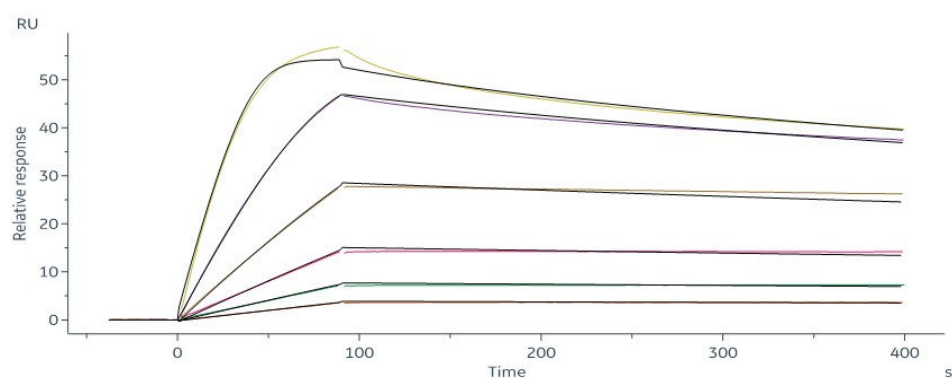
The purity of Rabbit Activin RIIA Protein, His Tag (Cat. No. ACA-R52H3) is more than 95% and the molecular weight of this protein is around 20-35 kDa verified by SEC-MALS.

Bioactivity-ELISA



Immobilized Human Activin A Protein, premium grade (Cat. No. ACA-H5314) at 0.5 µg/mL (100 µL/well) can bind Rabbit Activin RIIA Protein, His Tag (Cat. No. ACA-R52H3) with a linear range of 2-78 ng/mL (QC tested).

Bioactivity-SPR



Rabbit Activin RIIA Protein, His Tag (Cat. No. ACA-R52H3) immobilized on CM5 Chip can bind Human Activin A Protein, premium grade (Cat. No. ACA-H5314) with an affinity constant of 0.07 nM as determined in a SPR assay (Biacore 8K) (Routinely tested).

Background

Activin receptor type-2A (ACVR2A) is also known as activin receptor type IIA, ACTR-IIA, ACTRIIA, and ACVR2, and is a single-pass type I membrane protein. ACVR2A belongs to the protein kinase superfamily, the TKL Ser/Thr protein kinase family, and the TGFβ receptor subfamily. Upon ligand binding, ACVR2A forms 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 then phosphorylate and activate SMAD transcriptional regulators. ACVR2A also serves as a receptor for activin A, activin B, and inhibin A (the latter in complex with betaglycan). Two type II activin receptors (ACVR2A and ACVR2B) have been identified, which bind different activins with distinct affinities.

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