



Synonym

Activin receptor type IIA, ACTRIIA

Source

Mouse Activin RIIA Protein, His Tag(ACA-M52H3) is expressed from human 293 cells (HEK293). It contains AA Ala 20 - Pro 135 (Accession # [P27038-1](#)).

Predicted N-terminus: Ala 20

Molecular Characterization

ACVR2A(Ala 20 - Pro 135)
 P27038-1 Poly-his

This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 15.3 kDa. The protein migrates as 25-35 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 μ g by the LAL method / rFC method.

Purity

>90% as determined by SDS-PAGE.

>90% as determined by SEC-HPLC.

Formulation

Lyophilized from 0.22 μ m 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

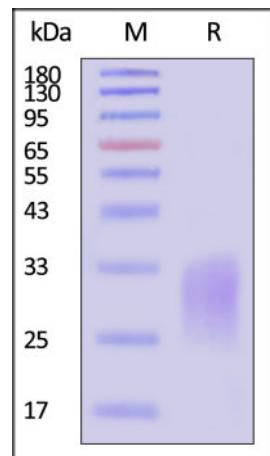
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

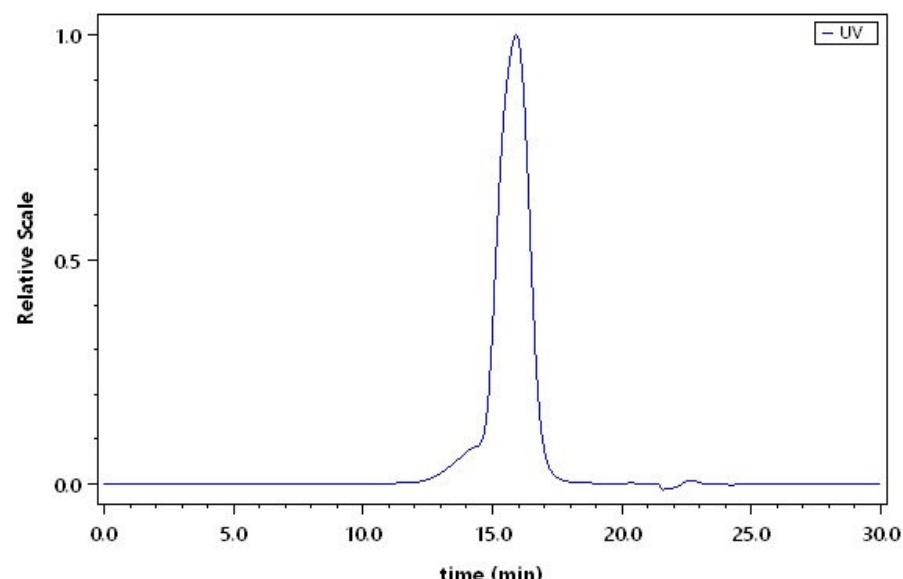
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



Mouse 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 90% (With [Star Ribbon Pre-stained Protein Marker](#)).

SEC-HPLC



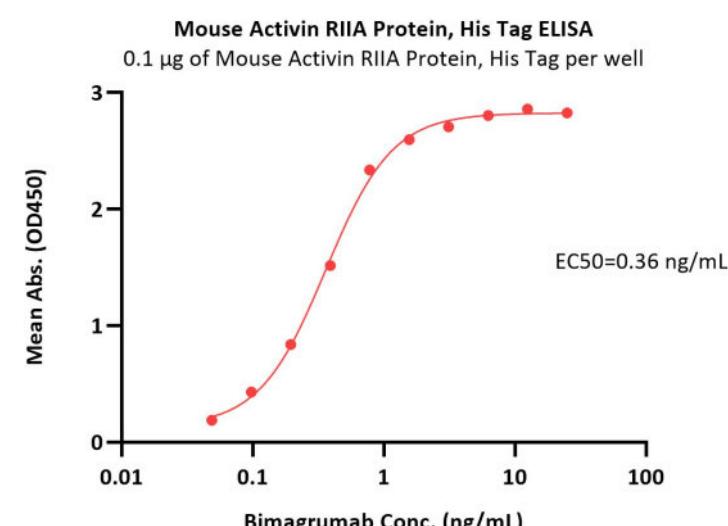
The purity of Mouse Activin RIIA Protein, His Tag (Cat. No. ACA-M52H3) was greater than 90% as determined by SEC-HPLC.

Bioactivity-ELISA

Discounts, Gifts,
 and more!

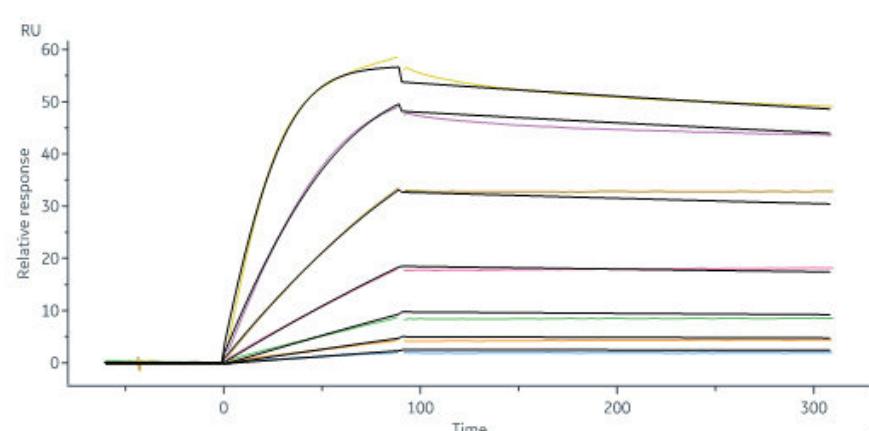


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Immobilized Mouse Activin RIIA Protein, His Tag (Cat. No. ACA-M52H3) at 1 µg/mL (100 µL/well) can bind Bimagrumab with a linear range of 0.05-1 ng/mL (Routinely tested).

Bioactivity-SPR



Mouse Activin RIIA Protein, His Tag (Cat. No. ACA-M52H3) capture on NTA-Series S sensor chip can bind Human Activin A Protein, Tag Free (Cat. No. ACA-H421b) with an affinity constant of 83.8 pM as determined in a SPR assay (Biacore 8K) (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.

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