Human Activin RIIA / ACVR2A Protein, Fc Tag

Catalog # ACA-H5269

Synonym

Activin receptor type IIA,ACTRIIA

Source

Human ACVR2A, Fc Tag(ACA-H5269) is expressed from human 293 cells (HEK293). It contains AA Ala 20 - Pro 135 (Accession # P27037-1).
Predicted N-terminus: Pro

Molecular Characterization

Fc(Pro 100 - Lys 330) P01857	ACVR2A(Ala 20 - Pro 135) P27037-1

This protein carries a human IgG1 Fc tag at the N-terminus.

The protein has a calculated MW of 39.9 kDa. The protein migrates as 50-60 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.

Purity

>90% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 μm filtered solution in 50 mM Tris, 100 mM Glycine, 25 mM Arginine, 150 mM NaCl, pH7.5 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

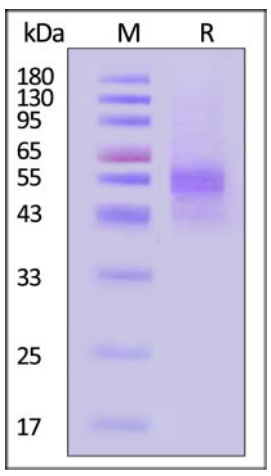
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

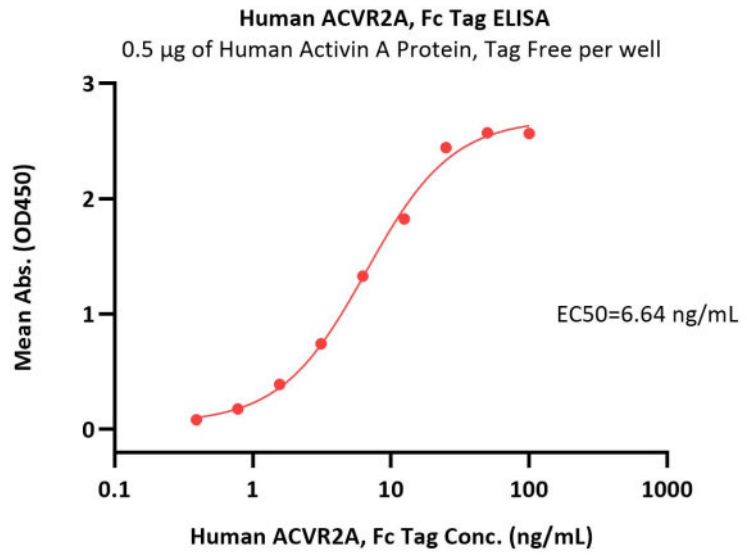
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



Human ACVR2A, Fc 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).

Bioactivity-ELISA



Immobilized Human Activin A Protein, Tag Free (Cat. No. ACA-H421b) at 5 μg/mL (100 μL/well) can bind Human ACVR2A, Fc Tag (Cat. No. ACA-H5269) with a linear range of 0.4-25 ng/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 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 autophosphorylate, then bind and activate SMAD transcriptional regulators.ACVR2A is Receptor for activin A, activin B and inhibin A as well. Several type I I activin receptors have been identified and bind to different activins with different affinities.

Clinical and Translational Updates