

Synonym

ACVR1b, ALK4, ACVRLK4, ACTR-IB, SKR2

Source

Human Activin RIB, His Tag (ACB-H52H4) is expressed from human 293 cells (HEK293). It contains AA Ser 24 - Glu 126 (Accession # [P36896-1](#)).

Predicted N-terminus: Ser 24

Molecular Characterization

ACVR1B(Ser 24 - Glu 126)
P36896-1 Poly-his

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

The protein has a calculated MW of 13.3 kDa. The protein migrates as 16-22 kDa 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 PBS, pH7.4. Normally trehalose is added as protectant before lyophilization.

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.

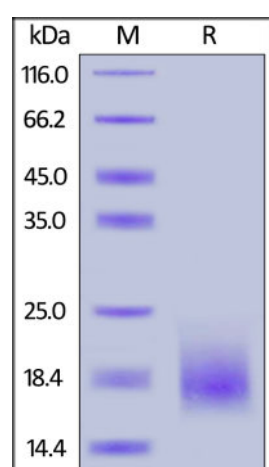
Storage

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

Please avoid repeated freeze-thaw cycles.

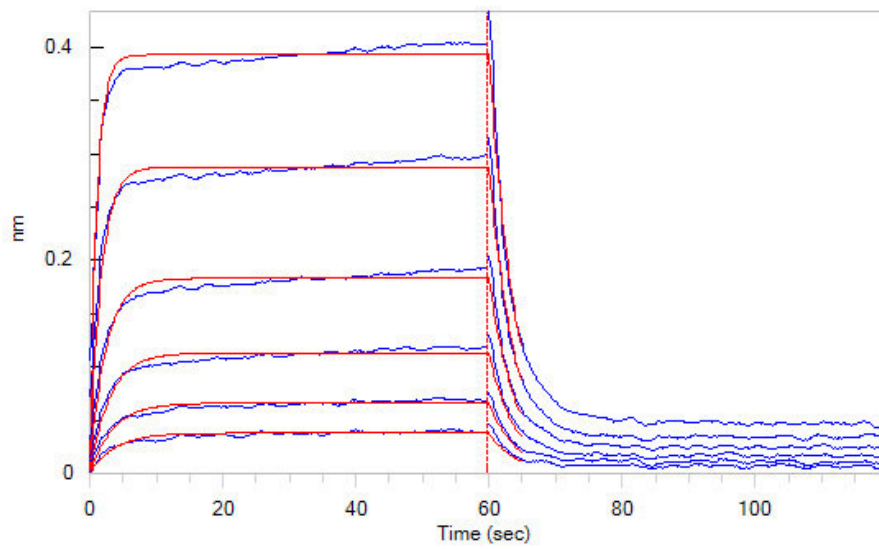
This product is stable after storage at:

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

SDS-PAGE

Human Activin RIB, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 90%.

Bioactivity-BLI



Loaded Human TDGF1, Fc Tag on Protein A Biosensor, can bind Human Activin RIB, His Tag (Cat. No. ACB-H52H4) with an affinity constant of 5.6 μ M as determined in BLI assay (ForteBio Octet Red96e) (QC Tested).

Background

Activin receptor type-1B (ACVR1B) is also known as Activin receptor-like kinase 4 (ALK-4), Serine/threonine-protein kinase receptor R2 (SKR2), which belongs to the protein kinase superfamily, TKL Ser/Thr protein kinase family and TGFB receptor subfamily. ACVR1B contains one GS domain and one protein kinase domain. The catalytic activity of ACVR1B is "ATP + [receptor-protein] = ADP + [receptor-protein] phosphate". ACVR1B acts as a transducer of activin or activin like ligands (e.g., inhibin) signals. Activin binds to either ACVR2A or ACVR2B and then forms a complex with ACVR1B. These go on to recruit the R-SMADs SMAD2 or SMAD3. ACVR1B also transduces signals of nodal, GDF-1, and Vg1.

References

Please contact us via TechSupport@acrobiosystems.com if you have any question on this product.