Human TGFR-1 / ALK-5 / TGF-beta receptor type-1 Protein, Llama IgG2b Fc Tag (SPR verified)

Catalog # TG1-H5259



Synonym

TGFR-1, ALK-5, TGF-beta receptor type-1, Activin receptor-like kinase 5

Source

Human TGF-beta RI Protein, Llama IgG2b Fc Tag(TG1-H5259) is expressed from human 293 cells (HEK293). It contains AA Leu 34 - Leu 126 (Accession # P36897-1).

Predicted N-terminus: Leu 34

Molecular Characterization

TGFR-1(Leu 34 - Leu 126) LlamaFc(Glu 1 - Ser 243)
P36897-1 AAX73259.1

This protein carries a llama IgG2b Fc tag at the C-terminus.

The protein has a calculated MW of 38.0 kDa. The protein migrates as 50-55 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 1.0 EU per µg by the LAL method.

Purity

>95% as determined by SDS-PAGE.

Formulation

Lyophilized from $0.22~\mu m$ 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

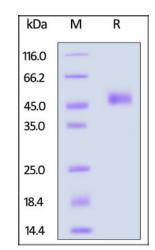
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

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 TGF-beta RI Protein, Llama IgG2b Fc Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

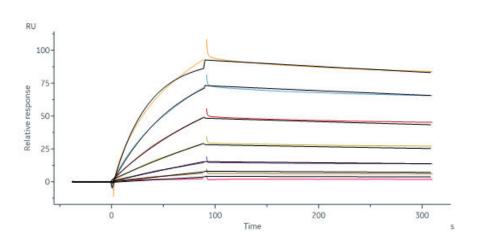
Bioactivity-SPR



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Biotinylated Human TGF-Beta 1, Avitag (Cat. No. TG1-H8217) immobilized on SA Chip can bind Human TGF-beta RI, Llama IgG2b Fc Tag (Cat. No. TG1-H5259) with an affinity constant of 83.7 nM as determined in a SPR assay (Biacore 8K) (QC tested).

Background

TGF type I receptor also called the activin receptor-like kinase 5 (ALK5) and involved in TGF signaling. TGF β signaling is mediated by the interaction of TGF β ligands (TGF β 1, 2 or 3) with cell surface receptors, the TGF type I, type II and type III receptors. Signaling is initiated by binding of TGF to the TGF type II receptor forming a ligand-receptor complex which interacts with the TGF type I receptor.

Clinical and Translational Updates

