



Synonym

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

Source

Human TGF-beta RI Protein, Fc Tag(TG1-H5254) is expressed from human 293 cells (HEK293). It contains AA Leu 34 - Leu 126 (Accession # [P36897-1](#)).

Molecular Characterization

TGFR-1(Leu 34 - Leu 126) P36897-1	Fc(Pro 100 - Lys 330) P01857
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This protein carries a human IgG1 Fc tag at the C-terminus.

The protein has a calculated MW of 36.7 kDa. The protein migrates as 43-48 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 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

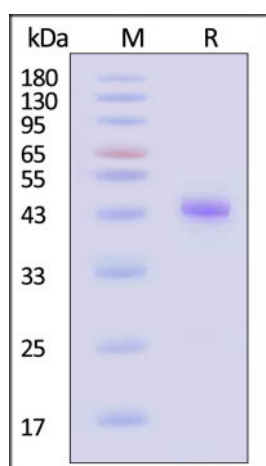
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

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.

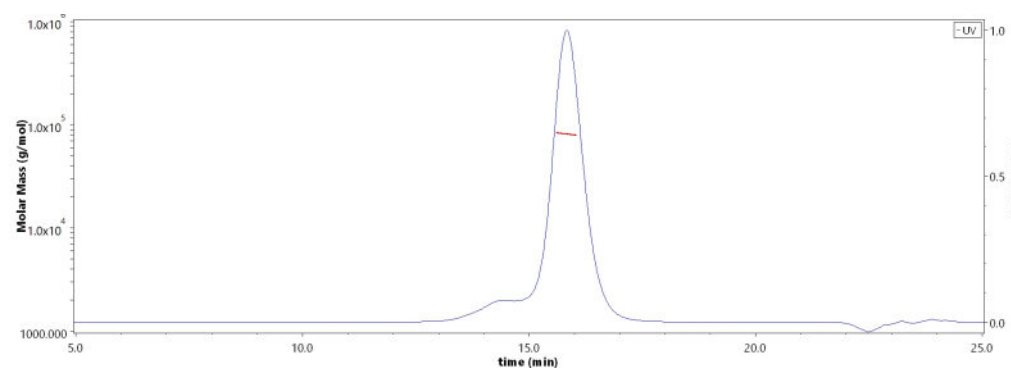
SDS-PAGE



Human TGF-beta RI Protein, 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-SPR

SEC-MALS

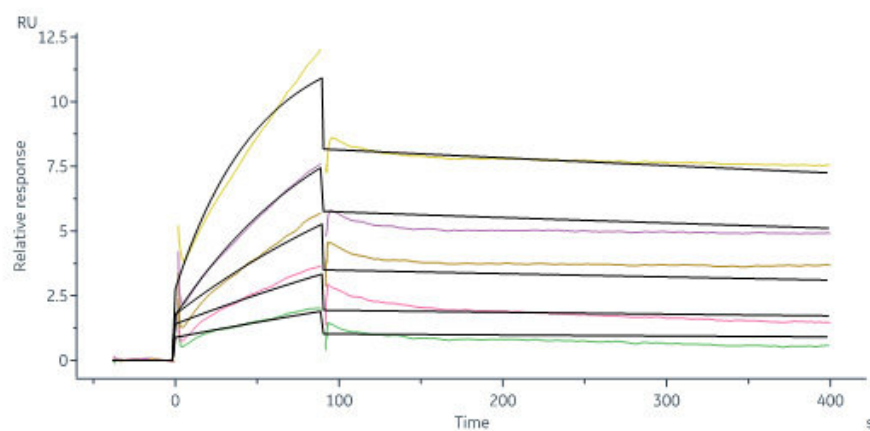


The purity of Human TGF-beta RI Protein, Fc Tag (Cat. No. TG1-H5254) is more than 85% and the molecular weight of this protein is around 75-90 kDa verified by SEC-MALS.

[Report](#)

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Human TGFB1, premium grade (Cat. No. TG1-H4212) immobilized on CM5 Chip can bind Human TGF-beta RI Protein, Fc Tag (Cat. No. TG1-H5254) with an affinity constant of 99.2 nM as determined in a SPR assay (Biacore 8K) (Routinely 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

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