

# Human TGF-beta RI Protein, Fc Tag (MALS verified)

Catalog # TG1-H5254



## 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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### Other Tags and Version [Biotin & Other Labeled Version](#)

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 / rFC 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

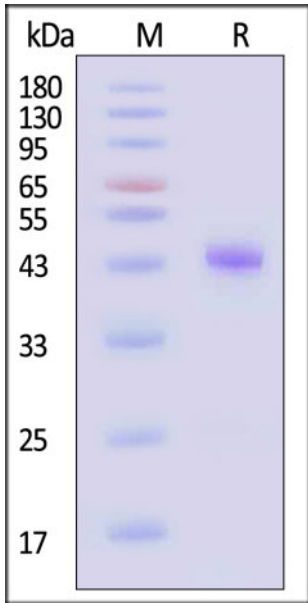
For long term storage, the product should be stored at lyophilized state at -20°C or lower.  
**Please avoid repeated freeze-thaw cycles.**  
This product is stable after storage at:

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

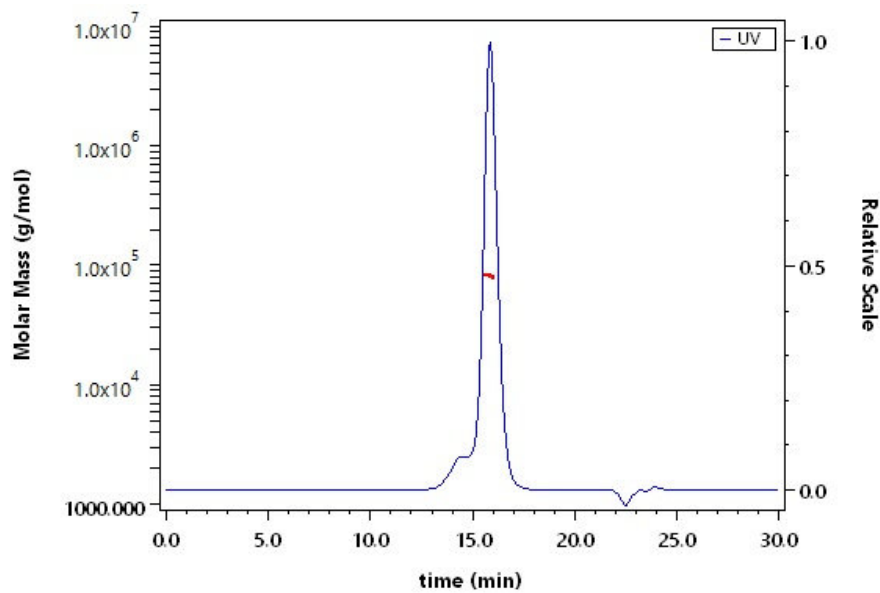
## ACRO Quality Management System

- [QMS\(ISO, GMP\)](#)
- [Quality Advantages](#)
- [Quality Control Process](#)

## SDS-PAGE

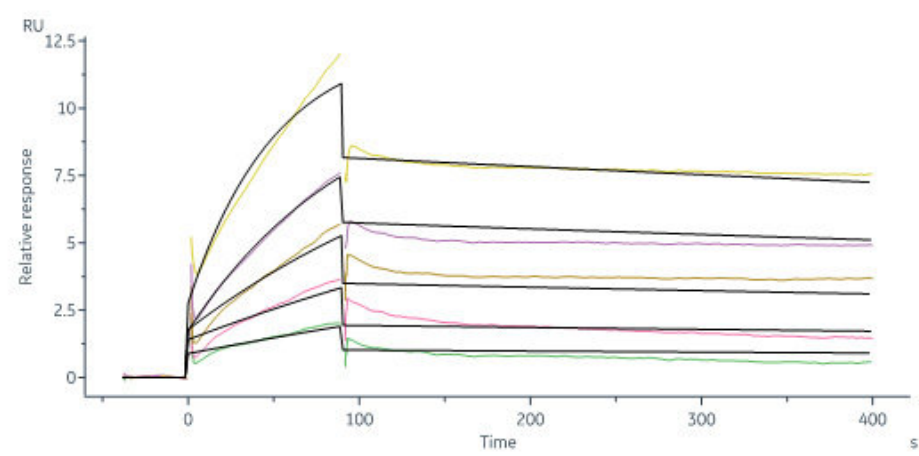


## SEC-MALS



Human TGF-beta RI Protein, Fc Tag on SDS-PAGE under reducing (R) condition. The purity of Human TGF-beta RI Protein, Fc Tag (Cat. No. TG1-H5254) is more than 90%. The gel was stained with Coomassie Blue. The purity of the protein is greater than 85% and the molecular weight of this protein is around 75-90 kDa verified by SEC-MALS.

## Bioactivity-SPR



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. TGFβ signaling is mediated by the interaction of TGFβ ligands (TGFβ 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.

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