

**Synonym**

TGFBR2, TGFR2, TbetaR-II, TGFβR2

**Source**

Human TGFBR2, Fc Tag(TG2-H5252) is expressed from human 293 cells (HEK293). It contains AA Thr 23 - Asp 159 (Accession # [NP\\_003233](#)).

Predicted N-terminus: Thr 23

**Molecular Characterization**

TGFBR2(Thr 23 - Asp 159) NP_003233	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 42.1 kDa. The protein migrates as 55-66 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.

>90% as determined by SEC-MALS.

**Formulation**

Lyophilized from 0.22 µm filtered solution in

Tris with Glycine, Arginine and 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.*

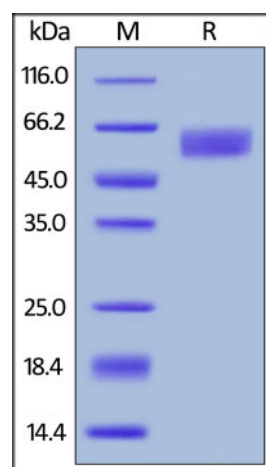
**Storage**

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

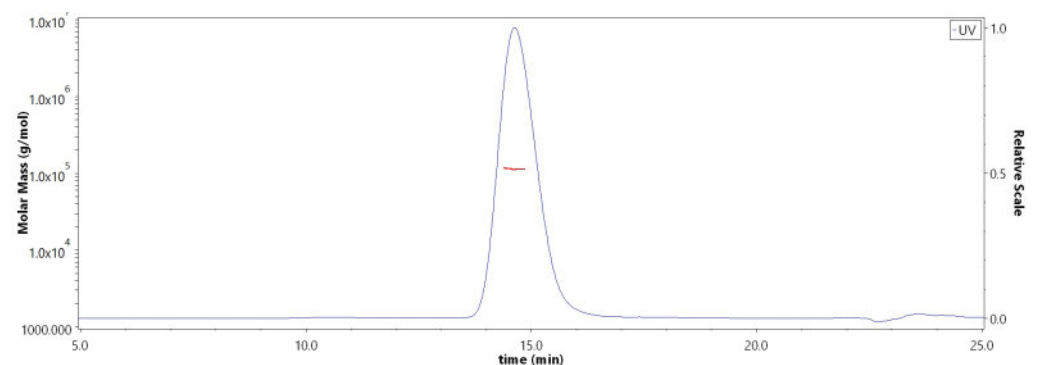
*Please avoid repeated freeze-thaw cycles.*

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.

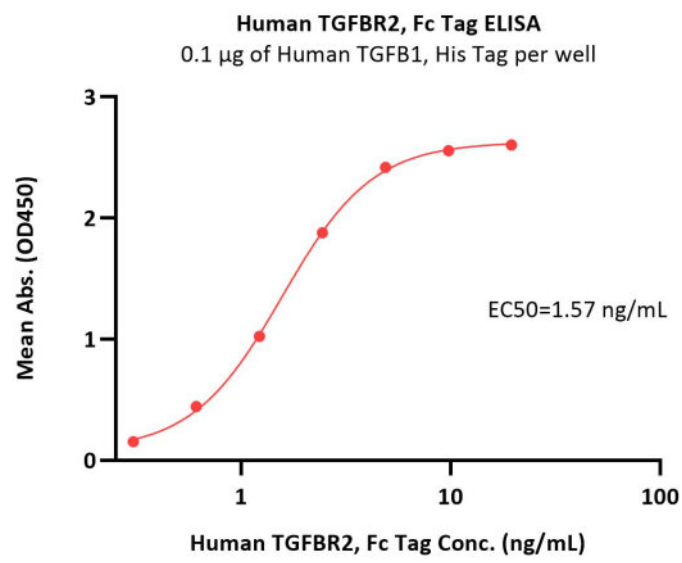
**SDS-PAGE**

Human TGFBR2, 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-ELISA****SEC-MALS**

The purity of Human TGFBR2, Fc Tag (Cat. No. TG2-H5252) is more than 90% and the molecular weight of this protein is around 105-120 kDa verified by SEC-MALS.

[Report](#)



Immobilized Human TGFβ1, His Tag (Cat. No. TG1-H524x) at 1 µg/mL (100 µL/well) can bind Human TGFBR2, Fc Tag (Cat. No. TG2-H5252) with a linear range of 0.3-2 ng/mL (QC tested).

### Background

TGF-beta receptor type-2 (TGFBR2 or TGFR-2) is also known as TGF-beta type II receptor, Transforming growth factor-beta receptor type II, TbetaR-II, TGFβR2, which is a homodimer or heterohexamer, belongs to the protein kinase superfamily, TKL Ser/Thr protein kinase family and TGFβ receptor subfamily. TGFR2 / TGFBR2 binds TGF-β1 / TGFB1 and TGF-β3 / TGFB3 with high affinity and TGF-β2 / TGFB2 with a much lower affinity. This type II receptor forms a heterodimeric complex with type I receptor and is essential for signal transduction. Upon ligand binding, the TGFR2 autophosphorylates its cytoplasmic domain and subsequently phosphorylates the downstream molecules which then enter the nucleus and regulate the transcription of a subset of genes related to cell proliferation.

### Clinical and Translational Updates

Please contact us via [TechSupport@acrobiosystems.com](mailto:TechSupport@acrobiosystems.com) if you have any question on this product.