

## Synonym

TGFBR2, TGFR2, TbetaR-II, TGF $\beta$ R2

## Source

Human TGF-beta RII, His Tag (TG2-H52H5) is expressed from human 293 cells (HEK293). It contains AA Thr 23 - Asp 159 (Accession # [P37173-1](#)).

Predicted N-terminus: Thr 23

## Molecular Characterization

TGFBR2(Thr 23 - Asp 159)  
P37173-1

Poly-his

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

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

The protein has a calculated MW of 17.4 kDa. The protein migrates as 25-45 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  $\mu$ g by the LAL method / rFC method.

## Purity

>90% as determined by SDS-PAGE.

>95% as determined by SEC-MALS.

## Formulation

Lyophilized from 0.22  $\mu$ m 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.**

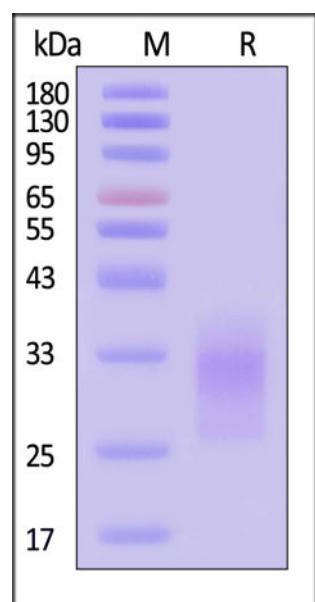
This product is stable after storage at:

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

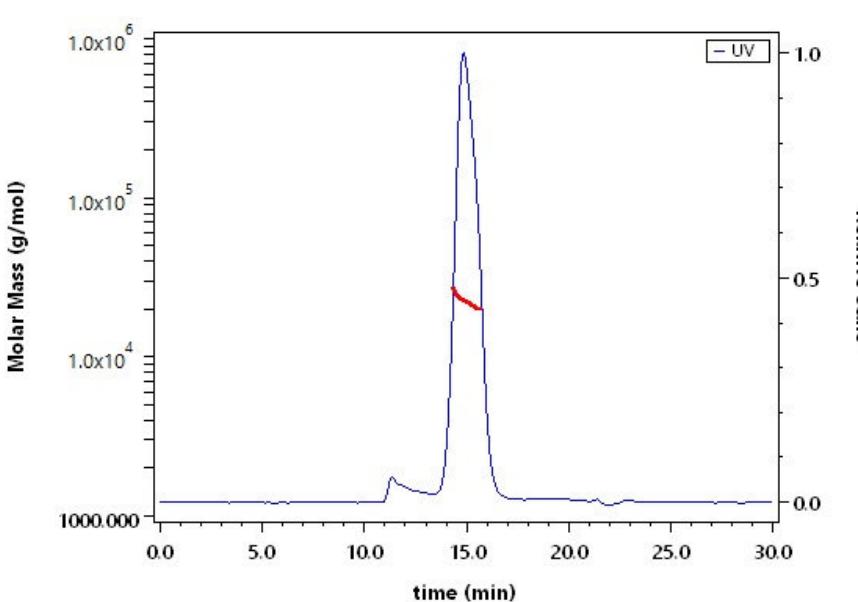
## ACRO Quality Management System

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

## SDS-PAGE



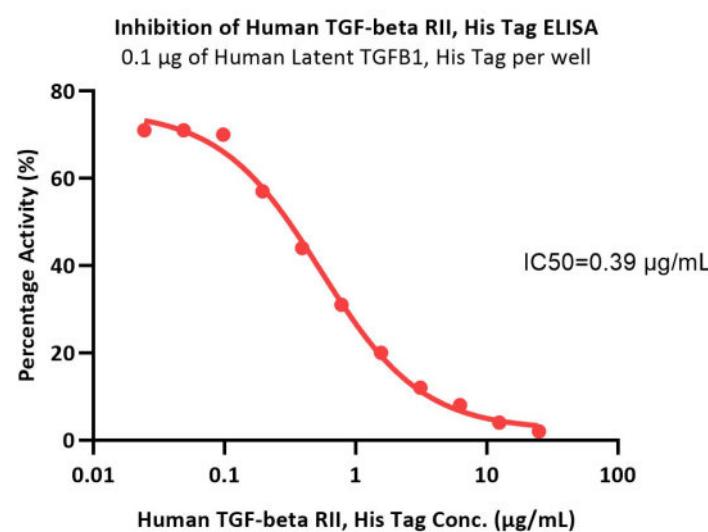
## SEC-MALS



Human TGF-beta RII, His 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](#)).

The purity of Human TGF-beta RII, His Tag (Cat. No. TG2-H52H5) is more than 95% and the molecular weight of this protein is around 20-30 kDa verified by SEC-MALS.

## Bioactivity-ELISA



Serial dilutions of Human TGF-beta RII, His Tag (Cat. No. TG2-H52H5) were added into Human Latent TGFB1, His Tag (Cat. No. TG1-H524x) : Biotinylated Human TGF-beta RII, His,Avitag (Cat. No. TG2-H82E4) binding reactions. The half maximal inhibitory concentration (IC<sub>50</sub>) is 0.39287 µg/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, TGF $\beta$ R2, which is a homodimer or heterohexamer, belongs to the protein kinase superfamily, TKL Ser/Thr protein kinase family and TGFB receptor subfamily. TGFR2 / TGFBR2 binds TGF- $\beta$ 1 / TGFB1 and TGF- $\beta$ 3 / TGFB3 with high affinity and TGF- $\beta$ 2 / 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.

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and more!



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