



## Synonym

TGFBR2, TGFR2, TbetaR-II, TGFβR2

## 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

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 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

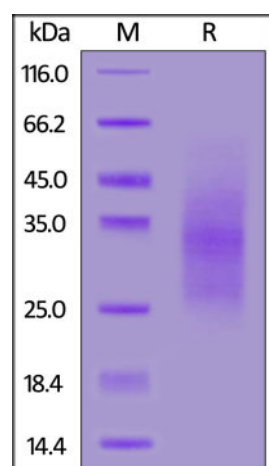
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*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



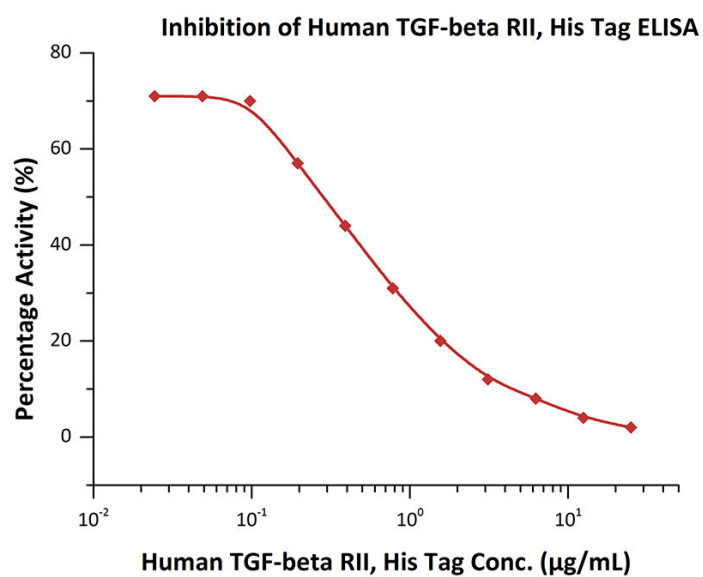
Human TGF-beta RII, His Tag on SDS-PAGE under reducing (R) condition.

The gel was stained with Coomassie Blue. The purity of the protein is greater than 90%.

## Bioactivity-ELISA

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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, TGFβR2, 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-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

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