

# Recombinant Human TGFBR2 Protein (His & Fc Tag)(Active)



Catalog Number:PKSH031653

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

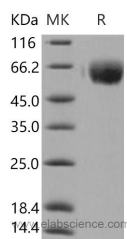
## Description

<b>Synonyms</b>	AAT3;FAA3;LDS1B;LDS2;LDS2B;MFS2;RIIC;TAAD2;TGFbeta-RII;TGFR-2;TGF-beta receptor type-2; TGF-beta type II receptor;TGFBR2; Transforming growth factor-beta receptor type II
<b>Species</b>	Human
<b>Expression Host</b>	HEK293 Cells
<b>Sequence</b>	Met 1-Asp 159
<b>Accession</b>	NP_003233.4
<b>Calculated Molecular Weight</b>	43.4 kDa
<b>Tag</b>	C-His-Fc
<b>Bioactivity</b>	Measured by its ability to inhibit TGF-beta1 activity on Mv-1-lu mink lung epithelial cells. The ED50 for this effect is typically 0.2-3.0 µg/ml in the presence of 1 ng/mL of recombinant human TGF-beta1.

## Properties

<b>Purity</b>	> 97 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 1.0 EU per µg of the protein as determined by the LAL method.
<b>Storage</b>	Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	Lyophilized from sterile 100mM Glycine, 10mM NaCl, 50mM Tris, pH 7.5
<b>Reconstitution</b>	Please refer to the printed manual for detailed information.

## Data



## Background

TGFBR2 is member of the Ser/Thr protein kinase family and the TGFBR receptor subfamily. It is a transmembrane protein. TGFBR2 is comprised by a C-terminal protein kinase domain and an N-terminal ectodomain. The ectodomain consists of a compact fold containing nine beta-strands and a single helix stabilised by a network of six intra strand disulphide bonds. The folding topology includes a central five-stranded antiparallel beta-sheet, eight-residues long at its centre, covered by a second layer consisting of two segments of two-stranded antiparallel beta-sheets. TGFBR2 has a protein kinase domain, forms a heterodimeric complex with another receptor protein, and binds TGF-beta. This receptor/ligand complex phosphorylates proteins, which then enter the nucleus and regulate the transcription of a subset of

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genes related to cell proliferation. Mutations in TGFBR2 gene have been associated with Marfan syndrome, Loeys-Deitz Aortic Aneurysm Syndrome, and the development of various types of tumors. TGFBR2 attenuates the biological activities of TGF-beta in colorectal cancer. TGFBR2 expression is increased in oral squamous cell carcinoma cells. Its expression is decreased by IL-1beta while inducing Sp3 via NFkappaB. TGFBR2 and TGFBR2 are involved in the antiestrogenic activity.

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