



# Recombinant Protein Technical Manual

## Recombinant Mouse TGFBR2 Protein (Fc Tag)

RPES3468

### Product Data:

**Product SKU:** RPES3468

**Size:** 10µg

**Species:** Mouse

**Expression host:** Human Cells

**Uniprot:** Q62312-2

### Protein Information:

**Molecular Mass:** 42.3 kDa

**AP Molecular Mass:** 55-65 kDa

**Tag:** C-Fc

**Bio-activity:**

**Purity:** > 95 % as determined by SDS-PAGE

**Endotoxin:** < 1.0 EU per µg as determined by the LAL method.

**Storage:** 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.

**Shipping:** This product is provided as lyophilized powder which is shipped with ice packs.

**Formulation:** Lyophilized from a 0.2 µm filtered solution of PBS, pH7.4.

**Reconstitution:** Please refer to the printed manual for detailed information.

**Application:**

**Synonyms:** TGF-beta receptor type-2; TGFR-2; TGF-beta type II receptor; Transforming growth factor-beta receptor type II; TGF-beta receptor type II; TbetaR-II; Tgfbr2

## Immunogen Information:

**Sequence:** Ile24-Asp159

## Background:

Transforming growth factor- $\beta$  (TGF- $\beta$ ) is an essential regulator in the processes of development, cell proliferation, and extracellular matrix deposition. TGF- $\beta$  regulates cellular processes by binding to three high-affinity cell surface receptors: TGF- $\beta$  receptor type I (TGF- $\beta$ -RI), TGF- $\beta$  receptor type II (TGF- $\beta$ -RII), and TGF- $\beta$  receptor type III (TGF- $\beta$ -RIII). TGF- $\beta$  RII consists of a C-terminal protein kinase domain and an N-terminal ectodomain and belongs to transforming growth factor-beta (TGF- $\beta$ ) receptor subfamily. TGF- $\beta$  RII has a protein kinase domain which can form a heterodimeric complex with another receptor protein and bind TGF-beta. This receptor/ligand complex phosphorylates protein will enter the nucleus and regulate the transcription of a subset of genes related to cell proliferation.