Recombinant Mouse Tgfbr2 Protein, Myc/DDK-tagged

Cat. No. Tgfbr2-6393M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Purified recombinant protein of mouse full-length transforming growth factor, beta receptor II (Tgfbr2), with C-terminal MYC/DDK tag, expressed in HEK293T cells.
Species	Mouse
Source	HEK293
Description	Transmembrane serine/threonine kinase forming with the TGF-beta type I serine/threonine kinase receptor, TGFBR1, the non-promiscuous receptor for the TGF-beta cytokines TGFB1, TGFB2 and TGFB3. Transduces the TGFB1, TGFB2 and TGFB3 signal from the cell surface to the cytoplasm and is thus regulating a plethora of physiological and pathological processes including cell cycle arrest in epithelial and hematopoietic cells, control of mesenchymal cell proliferation and differentiation, wound healing, extracellular matrix production, immunosuppression and carcinogenesis. The formation of the receptor complex composed of 2 TGFBR1 and 2 TGFBR2 molecules symmetrically bound to the cytokine dimer results in the phosphorylation and the activation of TGFRB1 by the constitutively active TGFBR2. Activated TGFBR1 phosphorylates SMAD2 which dissociates from the receptor and interacts with SMAD4. The SMAD2-SMAD4 complex is subsequently translocated to the nucleus where it modulates the transcription of the TGF-beta-regulated genes. This constitutes the canonical SMAD-dependent TGF-beta signaling cascade. Also involved in non-canonical, SMAD-independent TGF-beta signaling pathways.
Molecular Mass	67.6 kDa

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Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining
Stability	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
Storage	Store at -80 centigrade after receiving vials.
Concentration	>50 μg/mL as determined by microplate BCA method
Storage Buffer	25 mM Tris.HCl, pH 7.3, 100 mM glycine, 10% glycerol.

GENE INFORMATION

Gene Name	Tgfbr2 transforming growth factor, beta receptor II [Mus musculus (house mouse)]
Official Symbol	Tgfbr2
Synonyms	TGFBR2; transforming growth factor, beta receptor II; TGF-beta receptor type-2; TGFR-2; TGF-beta receptor II; TGF-beta receptor type II; TGF-beta type II receptor; transforming growth factor-beta receptor type II; DNIIR; RIIDN; TBR-II; AU042018; TbetaRII; TbetaR-II; 1110020H15Rik
Gene ID	21813
mRNA Refseq	NM_009371
Protein Refseq	NP_033397
UniProt ID	Q62312

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