Recombinant Human TGFBR2 Protein (L50-D159), His tagged

Cat. No. TGFBR2-1290H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human 6His-TEV-TGFBR2(L50-D159) Protein was expressed in E. coli.
Species	Human
Source	E.coli
ProteinLength	L50-D159
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.

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Form	Liquid
Endotoxin	< 0.01 EU per μg of the protein
Purity	90%
Stability	Samples are stable for up to twelve months from date of receipt at -20 to -80 centigrade.
Storage	Store it under sterile conditions at -20 to -80 centigrade. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Storage Buffer	Supplied as sterile 50 mM Tris-HCl (pH7.5), 200 mM NaCl, 20% glycerol
Shipping	It is shipped out with blue ice.

GENE INFORMATION

Gene Name	TGFBR2 transforming growth factor, beta receptor II (70/80kDa) [Homo sapiens (human)]
Official Symbol	TGFBR2
Synonyms	TGFBR2; transforming growth factor, beta receptor II (70/80kDa); MFS2, transforming growth factor, beta receptor II (70 80kD); TGF-beta receptor type-2; tbetaR-II; TGF-beta receptor type II; TGF-beta type II receptor; TGF-beta receptor type IIB; transforming growth factor-beta receptor type II; transforming growth factor beta receptor type IIC; transforming growth factor, beta receptor II (70/80kDa) isoform 1; transforming growth factor, beta receptor II (70/80kDa) isoform 2; AAT3; FAA3; MFS2; RIIC; LDS1B; LDS2B; TAAD2; TGFR-2; TGFbeta-RII;

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Gene ID	7048
mRNA Refseq	NM_001024847
Protein Refseq	NP_001020018
MIM	190182
UniProt ID	P37173

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