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PRODUCT INFORMATION

Antigen Description	Most cell types express three sizes of receptors for TGF-beta. These are designated Type I (53 kDa), Type II (70 - 85 kDa), and Type III (250 - 350 kDa). The Type I receptor is a membrane- bound serine/threonine kinase that apparently requires the presence of the Type II receptor to bind TGF-beta. The Type II receptor is also a membrane-bound serine/threonine kinase that binds TGF-beta1 and TGF-beta 3 with high affinity and TGF-beta 2 with much lower affinity. The Type I and Type II receptors together form a heterodimeric signaling complex that is essential for the transduction of the anti-proliferative signals of TGF-beta. The Type III receptor is a transmembrane proteoglycan with a large extracellular domain and a 43 amino acid residue cytoplasmic domain. The cytoplasmic domain of the Type III receptor lacks an obvious signaling motif and the receptor may not be involved directly in signal transduction.
Specificity	Detects human TGF-beta RII in ELISAs andWestern blots. In sandwich immunoassays, approximately 25% cross-reactivity with recombinant human (rh)TGF-beta RIIb is observedand less than 0.05% cross-reactivity with rhTGF-beta RI, rhTGF-beta RIII, recombinant mouse TGF-beta RII, and rhTGF-beta 1 is observed.
Immunogen	Mouse myeloma cell line NS0-derived recombinant human TGF-beta RII. Ile24-Asp159 Accession Number P37173
Isotype	lgG
Source/Host	Goat
Species Reactivity	Human
Purification	Antigen Affinity-purified
Conjugate	Biotin
Applications	Western Blot, ELISA Detection (Matched Pair)

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Format	Liquid
Size	50 µg
Buffer	Lyophilized from a 0.2 μm filtered solution in PBS with BSA as a carrier protein.
Preservative	None
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 °C as supplied. 1 month, 2 to 8 °C under sterile conditions after reconstitution. 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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); AAT3; FAA3; LDS2; MFS2; RIIC; LDS1B; LDS2B; TAAD2; TGFR-2; TGFbeta-RII; TGF-beta receptor type-2; tbetaR-II; TGF-beta type II receptor; TGF-beta receptor type IIB; transforming growth factor
Entrez Gene ID	7048
Protein Refseq	<u>NP_001020018</u>
UniProt ID	D2JYI1
Chromosome Location	3p22
Pathway	ALK1 signaling events; Adherens junction; Chagas disease (American trypanosomiasis); Chronic myeloid leukemia; Colorectal cancer; Cytokine-cytokine receptor interaction; Disease; Downregulation of TGF-beta receptor signaling;
Function	ATP binding; SMAD binding; glycosaminoglycan binding; metal ion binding; mitogen-activated protein kinase kinase binding; protein binding; contributes_to protein binding; receptor signaling protein serine/threonine kinase activity; transforming gro