

Recombinant Human Transforming Growth Factor, Beta Receptor III

Cat. No. TGFBR3-1685H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Human TGFBR3 encoding the amino terminal 781 amino acid residue extracellular domain of human TGF- β receptor type III was inserted into a suitable mammalian expression vector and expressed in a mouse myeloma cell line, NSO.
Species	Human
Source	Mammalian Cells
Description	Transforming growth factor-beta (TGF-beta) signals through three highly conserved cell surface receptors, the type III TGF-beta receptor (T beta RIII), the type II TGF-beta receptor (T beta RII), and the type I TGF-beta receptor (T beta RI) to regulate diverse cellular processes including cell proliferation, differentiation, migration, and apoptosis. T beta RIII is a heparan sulfate proteoglycan with a short cytoplasmic tail that functions as a TGF-beta superfamily co-receptor, contributing to TGF-beta signaling. T-beta-RIII might provide a mechanism for the distinct effects of TGF-beta at the different stages of breast cancer.
Molecular Weight	The predicted molecular weight of Recombinant Human TGF- β soluble Receptor III is Mr 84 kDa. However, the actual molecular weight as observed by migration on SDS Page is Mr 100 kDa.
State Of Matter	Lyophilized.
Purity	>90% by SDS Page and analyzed by silver stain.

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Endotoxin	<1.0 EU/g as determined by the LAL method.
Biological Activity	The biological activity of Human TGF- β soluble Receptor III was determined by its ability to inhibit the TGF- β 2 mediated response of a mouse T cell line, HT-2 (Tsang, M. et al., 1995, Cytokine 7:389). The expected ED50 is approximately 20 - 50 ng/mL to inhibit 50% of the biological response due to 0.4 ng/mL of TGF- β 2.
Storage And Stability	This lyophilized protein is stable for six to twelve months when stored desiccated at -20°C to -70°C. After aseptic reconstitution, this protein may be stored at 2°C to 8°C for one month or at -20°C to -70°C in a manual defrost freezer. Avoid Repeated Freeze Thaw Cycles. See Product Insert for exact lot specific storage instructions.

GENE INFORMATION

Gene Name	TGFB3 transforming growth factor, beta receptor III [Homo sapiens]
Synonyms	TGFB3; transforming growth factor, beta receptor III; BGCAN; betaglycan; betaglycan proteoglycan; transforming growth factor, beta receptor III (betaglycan, 300kDa); TGF-beta receptor type III; TGFR-3
Gene ID	7049
mRNA Refseq	NM_003243
Protein Refseq	NP_003234
MIM	600742
UniProt ID	Q03167

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**Chromosome
Location**

1p33-p32

Function

PDZ domain binding; SMAD binding; coreceptor activity; heparin binding; transforming growth factor beta binding; transforming growth factor beta receptor activity, type III; type II transforming growth factor beta receptor binding

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