

## TGF-beta receptor type-2

Catalog No: #AP79501



Package Size: #AP79501-1 50ug #AP79501-2 100ug #AP79501-3 1mg

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## Description

Product Name	TGF-beta receptor type-2
Brief Description	Recombinant Protein
Host Species	E.coli
Purification	Greater than 90% by SDS-PAGE
Species Reactivity	Mouse
Immunogen Description	Recombinant protein
Other Names	TGF-beta type II receptor, Transforming growth factor-beta receptor type II, TGF-beta receptor type II
Accession No.	Q62312 Gene name: Tgfb2
Uniprot	Q62312
GeneID	21813;
Tag Info	His
Formulation	50mM NaH <sub>2</sub> PO <sub>4</sub> , 500mM NaCl Buffer with 500mM Imidazole, 10% glycerol (pH 8.0)
Storage	Store at -20C. (Avoid repeated freezing and thawing.) Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.

## Background

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 TGFBR1 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.

## References

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Note: This product is for in vitro research use only