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# TGFBR2 Antibody (N-term) Blocking peptide

**Synthetic peptide**
**Catalog # BP11854a**

## Specification

### TGFBR2 Antibody (N-term) Blocking peptide - Product Information

Primary Accession P37173

### TGFBR2 Antibody (N-term) Blocking peptide - Additional Information

**Gene ID** 7048

**Other Names**
TGF-beta receptor type-2, TGFR-2, TGF-beta type II receptor, Transforming growth factor-beta receptor type II, TGF-beta receptor type II, TbetaR-II, TGFBR2

**Format**
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

**Storage**
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

**Precautions**
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

### TGFBR2 Antibody (N-term) Blocking peptide - Protein Information

**Name** TGFBR2

**Function**
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 thus regulates 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 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.

**Cellular Location**
Cell membrane; Single-pass type I membrane protein. Membrane raft

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## TGFBR2 Antibody (N-term) Blocking peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

## TGFBR2 Antibody (N-term) Blocking peptide - Images

## TGFBR2 Antibody (N-term) Blocking peptide - Background

The protein encoded by this gene is found primarily incerebellar Purkinje cells, where it functions as a proteinphosphatase inhibitor. The encoded protein is a substrate forcGMP-dependent protein kinase. An allele of this gene wasdiscovered that increases susceptibility to hypercholesterolemia.Two transcript variants encoding different isoforms have been foundfor this gene.

## TGFBR2 Antibody (N-term) Blocking peptide - References

Rose, J.E., et al. Mol. Med. 16 (7-8), 247-253 (2010) :Ono, S., et al. J. Hum. Genet. 48(9):447-450(2003)Endo, S., et al. Proc. Natl. Acad. Sci. U.S.A. 96(5):2467-2472(1999)Hall, K.U., et al. J. Biol. Chem. 274(6):3485-3495(1999)