

TGF-beta Receptor II Antibody

Rabbit Polyclonal Antibody Catalog # ABV11026

Specification

TGF-beta Receptor II Antibody - Product Information

Application WB, IHC
Primary Accession P38438
Other Accession NP_112394

Reactivity Human, Mouse, Rat

Host Rabbit
Clonality Polyclonal
Isotype Rabbit IgG
Calculated MW 64241

TGF-beta Receptor II Antibody - Additional Information

Gene ID 81810

Application & Usage The antibody can be used for Western

blotting (0.5-4 μ g/ml). However, the optimal conditions should be determined individually. Blocking peptide is available

separately.

Other Names

Transforming growth factor-beta receptor type II, Transforming growth factor-beta receptor type 2, TGF-beta type II receptor, TbetaR-II; TGFR-2, TGFG2, TGFR 2

Target/Specificity

TGF-b Receptor II

Antibody Form Liquid

Appearance Colorless liquid

Formulation

 $100 \mu g$ (0.5 mg/ml) affinity purified rabbit polyclonal antibody in phosphate buffered saline (PBS), pH 7.2, containing 30% glycerol, 0.5% BSA, 0.01% thimerosal.

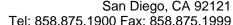
Handling

The antibody solution should be gently mixed before use.

Reconstitution & Storage

-20 °C

Background Descriptions





Precautions

TGF-beta Receptor II Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

TGF-beta Receptor II Antibody - 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 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 (By similarity).

Cellular Location

Cell membrane {ECO:0000250|UniProtKB:P37173}; Single-pass type I membrane protein {ECO:0000250|UniProtKB:P37173} Membrane raft {ECO:0000250|UniProtKB:P37173}

TGF-beta Receptor II Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

TGF-beta Receptor II Antibody - Images

TGF-beta Receptor II Antibody - Background

TGF-β (Transforming growth factor-beta superfamily members are critical regulators of cell proliferation, differentiation, morphogenesis, and pathogenesis. TGF-beta receptor is a serine/threonine kinase receptor complex that consists of two distinct transmembrane proteins known as type I and type II receptors. In response to ligand binding, the type II receptors form a stable complex with the type I receptors allowing phosphorylation and thus activation of the type I receptor kinases.