

## Transforming Growth Factor Beta Receptor 1 (TGFB1) Antibody

Catalogue No.: abx034768



Transmembrane serine/threonine kinase forming with the TGF-beta type II serine/threonine kinase receptor, TGFB2, 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 TGFB1 and 2 TGFB2 molecules symmetrically bound to the cytokine dimer results in the phosphorylation and the activation of TGFB1 by the constitutively active TGFB2. Activated TGFB1 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. For instance, TGFB1 induces TRAF6 autoubiquitination which in turn results in MAP3K7 ubiquitination and activation to trigger apoptosis. Also regulates epithelial to mesenchymal transition through a SMAD-independent signaling pathway through PARD6A phosphorylation and activation.

<b>Target:</b>	TGFB1
<b>Reactivity:</b>	Human, Mouse
<b>Host:</b>	Rabbit
<b>Clonality:</b>	Polyclonal
<b>Tested Applications:</b>	WB

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**Recommended dilutions:** Optimal dilutions/concentrations should be determined by the end user.

**Purification:** Peptide Affinity Purified Rabbit Polyclonal Antibody.

**Isotype:** IgG

**Conjugation:** Unconjugated

**Specificity:** This TGFBR1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 145-172 amino acids from the Central region of human TGFBR1.

**Storage:** Aliquot and store at -20 °C. Avoid repeated freeze/thaw cycles.

**Swiss Prot:** [P36897](#)

**Buffer:** PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

**Note:** This product is for research use only.