

Anti-TGFBR2 Antibody

Catalog # ABO11173

Product Information

Application	WB
Primary Accession	P37173
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for TGF-beta receptor type-2(TGFR2) detection. Tested with WB in Human;Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	7048
Other Names	TGF-beta receptor type-2, TGFR-2, 2.7.11.30, TGF-beta type II receptor, Transforming growth factor-beta receptor type II, TGF-beta receptor type II, TbetaR-II, TGFR2
Calculated MW	64568
Application Details	Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat
Subcellular Localization	Cell membrane ; Single-pass type I membrane protein .
Source	Eukaryota
Protein Name	TGF-beta receptor type-2(TGFR-2)
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3.
Immunogen	A synthetic peptide corresponding to a sequence in the middle region of human TGF beta Receptor II(330-346aa KGNLQEYLTRHVISWED), identical to the related rat and mouse sequences.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins
Storage	At -20 °C for one year. After reconstitution, at 4 °C for one month. It can also be aliquotted and stored frozen at -20 °C for a longer time.Avoid repeated freezing and thawing.

Sequence Similarities

Belongs to the protein kinase superfamily. TKL Ser/Thr protein kinase family. TGFB receptor subfamily.

Protein Information

Name

TGFB2

Function

Transmembrane serine/threonine kinase forming with the TGF- beta type I serine/threonine kinase receptor, TGFB1, 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 TGFB1 and 2 TGFB2 molecules symmetrically bound to the cytokine dimer results in the phosphorylation and 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.

Cellular Location

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

Background

TGFB2(transforming growth factor, beta receptor II(70/80kDa)), also known as 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), is a member of the Ser/Thr protein kinase family and the TGFB receptor subfamily. A TGFB2 cDNA encoding a deduced 565-amino acid protein with a calculated molecular mass of approximately 60 kD in length. The encoded protein is a transmembrane protein that has a protein kinase domain, forms a heterodimeric complex with another receptor protein, and binds TGF-beta. This receptor/ligand complex phosphorylates proteins, which then enter the nucleus and regulate the transcription of a subset of genes related to cell proliferation. Mutations in this gene have been associated with Marfan syndrome, Loeys-Deitz aortic aneurysm syndrome, Osler-Weber-Rendu syndrome, and the development of various types of tumors. Alternatively spliced transcript variants encoding different isoforms have been characterized. TGFB2 may be a target of the EWS-FLI1 fusion protein found in Ewing sarcoma and related peripheral primitive neuroectodermal tumors.

Images



Anti- TGF beta Receptor II antibody, ABO11173, Western blottingAll lanes: Anti TGF beta Receptor II (ABO11173) at 0.5ug/mlLane 1: HEPG2 Whole Cell Lysate at 40ugLane 2: COLO320 Whole Cell Lysate at 40ugPredicted bind size: 65KDObserved bind size: 65KD

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