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Mouse Tgfbr2 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP17322b

Product Information

Application	WB, E
Primary Accession	Q62312
Other Accession	NP_033397.3
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB37153
Calculated MW	64219
Antigen Region	548-575

Additional Information

Gene ID	21813
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
Target/Specificity	This Mouse Tgfbr2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 548-575 amino acids from the C-terminal region of mouse Tgfbr2.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	Mouse Tgfbr2 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

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}
Tissue Location	Widely expressed in adult. Expressed primarily in mesenchyme and epidermis of the midgestational fetus

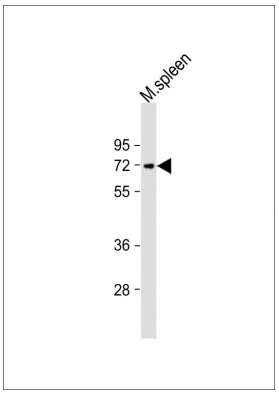
Background

On ligand binding, forms a receptor complex consisting of two type II and two type I transmembrane serine/threonine kinases. Type II receptors phosphorylate and activate type I receptors which autophosphorylate, then bind and activate SMAD transcriptional regulators. Receptor for TGF-beta.

References

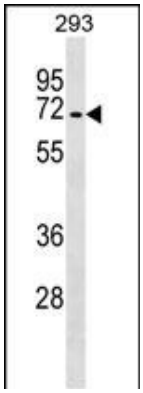
Droguett, R., et al. Exp. Cell Res. 316(15):2487-2503(2010)
Robson, A., et al. Dev. Dyn. 239(9):2435-2442(2010)
Moreno, S.G., et al. Dev. Biol. 342(1):74-84(2010)
Ouyang, W., et al. Immunity 32(5):642-653(2010)
Lu, L., et al. J. Immunol. 184(8):4295-4306(2010)

Images



Anti-Mouse Tgfbr2 Antibody (C-term) at 1:1000 dilution + mouse spleen lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 67 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

Mouse Tgfbr2 Antibody (C-term) (Cat. #AP17322b) western blot analysis in 293 cell line lysates (35ug/lane).This demonstrates the Tgfbr2 antibody detected the Tgfbr2 protein (arrow).



Citations

- Aspirin Inhibits LPS-Induced Expression of PI3K/Akt, ERK, NF-κB, CX3CL1, and MMPs in Human Bronchial Epithelial Cells.