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Mouse Tgfbr1 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP14778c

Specification

Mouse Tgfbr1 Antibody (Center) - Product Information

Application	**WB,E**
Primary Accession	Q64729
Other Accession	P80204, Q5CD18, P36897, Q46680, NP_033396.1
Reactivity	**Mouse**
Predicted	**Bovine, Human, Pig, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**56179**
Antigen Region	**141-169**

Mouse Tgfbr1 Antibody (Center) - Additional Information

Gene ID 21812

Other Names
TGF-beta receptor type-1, TGFR-1, ESK2, Transforming growth factor-beta receptor type I, TGF-beta receptor type I, TbetaR-I, Tgfbr1

Target/Specificity
This Mouse Tgfbr1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 141-169 amino acids from the Central region of mouse Tgfbr1.

Dilution
WB~~1:1000

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 Tgfbr1 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Mouse Tgfbr1 Antibody (Center) - Protein Information

Name Tgfbr1

Function Transmembrane serine/threonine kinase forming with the TGF- beta type II serine/threonine kinase receptor, TGFBR2, 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 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. For instance, TGFBR1 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 (By similarity).

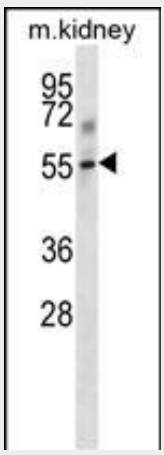
Cellular Location
Cell membrane {ECO:0000250|UniProtKB:P36897}; Single-pass type I membrane protein {ECO:0000250|UniProtKB:P36897} Cell junction, tight junction {ECO:0000250|UniProtKB:P36897}. Membrane raft {ECO:0000250|UniProtKB:P36897}. Cell surface {ECO:0000250|UniProtKB:P36897}

Mouse Tgfbr1 Antibody (Center) - 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

Mouse Tgfbr1 Antibody (Center) - Images



Mouse Tgfbr1 Antibody (Center) (Cat. #AP14778c) western blot analysis in mouse kidney tissue lysates (35ug/lane).This demonstrates the Tgfbr1 antibody detected the Tgfbr1 protein (arrow).

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Mouse Tgfbr1 Antibody (Center) - 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.

Mouse Tgfbr1 Antibody (Center) - References

Ghoreschi, K., et al. Nature 467(7318):967-971(2010)
Kel, J.M., et al. J. Immunol. 185(6):3248-3255(2010)
Droguett, R., et al. Exp. Cell Res. 316(15):2487-2503(2010)
Moreno, S.G., et al. Dev. Biol. 342(1):74-84(2010)
Shimogori, T., et al. Nat. Neurosci. 13(6):767-775(2010)