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TGFBR3 Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO2252a

Product Information

Application	WB, FC, E
Primary Accession	Q03167
Reactivity	Human, Mouse
Host	Mouse
Clonality	Monoclonal
Clone Names	1C5H11
Isotype	IgG2b
Calculated MW	93499
Description	This locus encodes the transforming growth factor (TGF)-beta type III receptor. The encoded receptor is a membrane proteoglycan that often functions as a co-receptor with other TGF-beta receptor superfamily members. Ectodomain shedding produces soluble TGFBR3, which may inhibit TGFB signaling. Decreased expression of this receptor has been observed in various cancers. Alternatively spliced transcript variants encoding different isoforms have been identified for this gene.
Immunogen	Purified recombinant fragment of human TGFBR3 (AA: 147-328) expressed in E. Coli.
Formulation	Ascitic fluid containing 0.03% sodium azide.

Additional Information

Gene ID	7049
Other Names	Transforming growth factor beta receptor type 3, TGF-beta receptor type 3, TGFR-3, Betaglycan, Transforming growth factor beta receptor III, TGF-beta receptor type III, TGFBR3
Dilution	WB~~1/500 - 1/2000 FC~~1/200 - 1/400 E~~1/10000
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	TGFBR3 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	TGFBR3 (HGNC:11774)

Function	Cell surface receptor that regulates diverse cellular processes including cell proliferation, differentiation, migration, and apoptosis (PubMed:12958365, PubMed:19416857). Initiates BMP, inhibin, and TGF-beta signaling pathways by interacting with different ligands including TGFB1, BMP2, BMP5, BMP7 or GDF5 (PubMed:18184661). Alternatively, acts as a cell surface coreceptor for BMP ligands, serving to enhance ligand binding by differentially regulating BMPR1A/ALK3 and BMPR1B/ALK6 receptor trafficking (PubMed:19726563). Promotes epithelial cell adhesion, focal adhesion formation and integrin signaling during epithelial cell spreading on fibronectin (PubMed:22562249). By interacting with the scaffolding protein beta- arrestin2/ARRB2, regulates migration or actin cytoskeleton and promotes the activation of CDC42 as well as the inhibition of NF-kappa-B (PubMed:19416857, PubMed:19325136). In gonadotrope cells, acts as an inhibin A coreceptor and regulates follicle-stimulating hormone (FSH) levels and female fertility (By similarity). Plays a role in the inhibition of directed and random cell migration in epithelial cells by altering the actin cytoskeletal organization (PubMed:19416857). Participates in epithelial-mesenchymal transformation (EMT) upon binding to BMP2 or TGFB2, by activating the PAR6/SMURF1/RHOA pathway (By similarity).
Cellular Location	Cell membrane; Single-pass type I membrane protein. Secreted {ECO:0000250|UniProtKB:P26342}. Secreted, extracellular space, extracellular matrix {ECO:0000250|UniProtKB:P26342}. Note=Exists both as a membrane-bound form and as soluble form in serum and in the extracellular matrix. {ECO:0000250|UniProtKB:P26342}

References

1.Mol Biol Cell. 2011 May;22(9):1463-72. 2.Zhongguo Fei Ai Za Zhi. 2010 May;13(5):451-7.

Images

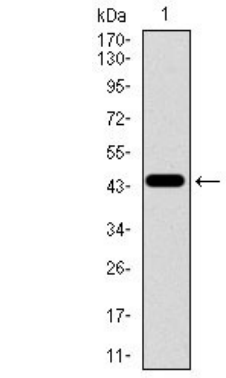


Figure 1: Western blot analysis using TGFBR3 mAb against human TGFBR3 recombinant protein. (Expected MW is 44.1 kDa)

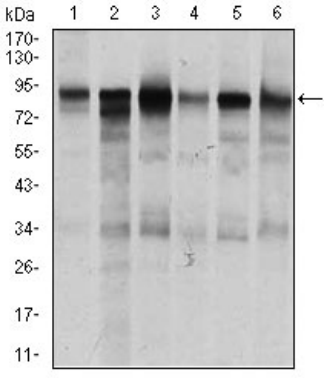
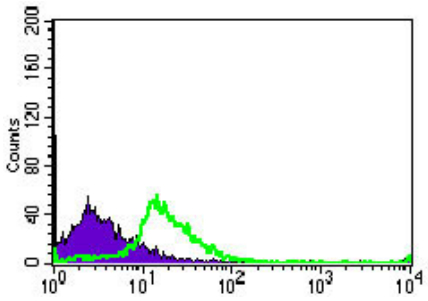


Figure 2: Western blot analysis using TGFBR3 mouse mAb against Jurkat (1), HeLa (2), MCF-7 (3), F9 (4), SK-N-SH (5), and NIH3T3 (6) cell lysate.

Figure 3: Flow cytometric analysis of MOLT4 cells using TGFBR3 mouse mAb (green) and negative control (purple).



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