Mouse anti-Human TGFb1 Monoclonal Antibody | anti-TGFb1 antibody

TGFb1 Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA322671	**Mouse**	**Human**	**Flow Cytometry, Functional Assay, ELISA, Immunocytochemistry, Immunofluorescence, Immunohistochemistry, Western Blot**

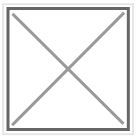
PRODUCT SYNONYMS

TGFb1; Monoclonal Antibody; TGFb1 Antibody; Cartilage-inducing factor; CED; Differentiation inhibiting factor; DPD1; LAP; Latency-associated peptide; Prepro transforming growth factor beta 1; TGF beta 1; TGF beta; TGF beta 1 protein; TGF-beta 1 protein; TGF-beta-1; TGF-beta-5; TGF-beta1; TGFB; Tgfb-1; tgfb1; TGFB1_HUMAN; TGFbeta; TGFbeta1; Transforming Growth Factor b1; Transforming Growth Factor beta 1; Transforming growth factor beta 1a; transforming growth factor beta-1; transforming growth factor; beta 1; Transforming Growth Factor-beta1; anti-TGFb1 antibody

PRODUCT SPECIFICATIONS

Host	Mouse
Reactivity	Human
Clonality	Monoclonal
Isotype	IgG1
Specificity	TGFb1 antibody detects endogenous levels of total TGFb1
Purity/Purification	Affinity-Chromatography
Form/Format	Phosphate buffered saline (without Mg2+ and Ca2+), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	390
Applicable Applications for anti-TGFb1 antibody	FCM/FACS (Flow Cytometry), ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	Purified recombinant fragment of human TGFb1 expressed in E. Coli
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



WB (Western Blot)
IMPORTANT: For western blot, incubate membrane with diluted primary Ab in 5% w/v milk, 1X TBS, 0.1% Tween20 at 4 degrees C with gentle shaking, overnight.Figure 1: Western blot analysis using TGFb1 mAb against human TGFb1 recombinant protein. (Expected MW is 41 kDa

ADDITIONAL INFORMATION

Related Product Information for anti-TGFb1 antibody	Description: This gene encodes a member of the transforming growth factor beta (TGFB) family of cytokines, which are multifunctional peptides that regulate proliferation, differentiation, adhesion, migration, and other functions in many cell types. Many cells have TGFB receptors, and the protein positively and negatively regulates many other growth factors. The secreted protein is cleaved into a latency-associated peptide (LAP) and a mature TGFB1 peptide, and is found in either a latent form composed of a TGFB1 homodimer, a LAP homodimer, and a latent TGFB1-binding protein, or in an active form composed of a TGFB1 homodimer. The mature peptide may also form heterodimers with other TGFB family members. Function: Multifunctional protein that controls proliferation, differentiation and other functions in many cell types. Many cells synthesize TGFB1 and have specific receptors for it. It positively and negatively regulates many other growth factors. It plays an important role in bone remodeling as it is a potent stimulator of osteoblastic bone formation, causing chemotaxis, proliferation and differentiation in committed osteoblasts (By similarity). Stimulates sustained production of collagen through the activation of CREB3L1 by regulated intramembrane proteolysis (RIP) (PubMed:25310401). Can promote either T-helper 17 cells (Th17) or regulatory T-cells (Treg) lineage differentiation in a concentration-dependent manner. At high concentrations, leads to FOXP3-mediated suppression of RORC and down-regulation of IL-17 expression, favoring Treg cell development. At low concentrations in concert with IL-6 and IL-21, leads to expression of the IL-17 and IL-23 receptors, favoring differentiation to Th17 cells. Mediates SMAD2/3 activation by inducing its phosphorylation and subsequent translocation to the nucleus (PubMed:25893292). Can induce epithelial-to-mesenchymal transition (EMT) and cell migration in various cell types (PubMed:25893292). Subunit Structure: Homodimer; disulfide-linked, or heterodimer with TGFB2 (By similarity). Secreted and stored as a biologically inactive form in the extracellular matrix in a 290 kDa complex (large latent TGF-beta1 complex) containing the TGFB1 homodimer, the latency-associated peptide (LAP), and the latent TGFB1 binding protein-1 (LTBP1). The complex without LTBP1 is known as the'small latent TGF-beta1 complex'. Dissociation of the TGFB1 from LAP is required for growth factor activation and biological activity. Release of the large latent TGF-beta1 complex from the extracellular matrix is carried out by the matrix metalloproteinase MMP3 (By similarity). May interact with THSD4; this interaction may lead to sequestration by FBN1 microfibril assembly and attenuation of TGFB signaling. Interacts with the serine proteases, HTRA1 and HTRA3: the interaction with either inhibits TGFB1-mediated signaling. The HTRA protease activity is required for this inhibition (By similarity). Latency-associated peptide interacts with NREP; the interaction results in a decrease in TGFB1 autoinduction (By similarity). Interacts with CD109, DPT and ASPN. Interacts (via processed form (LAP)) with HSP90AB1; inhibits latent TGFB1 activation (PubMed:20599762). Post-translational Modifications: Glycosylated. The precursor is cleaved into mature TGF-beta-1 and LAP, which remains non-covalently linked to mature TGF-beta-1 rendering it inactive. Similarity: The 'straitjacket' and 'arm' domains encircle the growth factor monomers and are fastened together by strong bonding between Lys-56 and Tyr-103/Tyr-104. Activation of TGF-beta1 requires the binding of integrin alpha-V to an RGD sequence in the prodomain and exertion of force on this domain, which is held in the extracellular matrix by latent TGF-beta binding proteins. The sheer physical force unfastens the straitjacket and releases the active growth factor dimer (By similarity). Belongs to the TGF-beta family.

NCBI AND UNIPROT INFORMATION

NCBI GI #	63025222
NCBI GeneID	7040
NCBI Accession #	NP_000651.3
NCBI GenBank Nucleotide #	NM_000660.6
UniProt Accession #	P01137; Q9UCG4; A8K792
Molecular Weight	44.3 kDa
NCBI Official Full Name	transforming growth factor beta-1 proprotein preproprotein
NCBI Official Synonym Full Names	transforming growth factor beta 1
NCBI Official Symbol	TGFB1
NCBI Official Synonym Symbols	CED; LAP; DPD1; TGFB; TGFbeta
NCBI Protein Information	transforming growth factor beta-1 proprotein; transforming growth factor beta-1
UniProt Protein Name	Transforming growth factor beta-1 proprotein

UniProt Gene Name	**TGFB1**
UniProt Synonym Gene Names	LAP; TGF-beta-1

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: https://stage.aaabiotech.com/monoclonal/tgfb1-antibody-flow-cytometry-immunocytochemistry-immunofluorescence-immunohistochemistry-western-blot-elisa/322671