

Product datasheet

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ARG66427 anti-TGF beta 1 antibody [SQab18129]

Package: 100 μg Store at: -20°C

Summary

Product Description Mouse Monoclonal antibody [SQab18129] recognizes TGF beta 1

Tested Reactivity Hu

Tested Application ELISA, FACS, ICC/IF, IHC-P, WB

Host Mouse

Clone Monoclonal SQab18129

Isotype IgG1, kappa
Target Name TGF beta 1
Species Human

Immunogen Recombinant Human TGF beta 1 protein.

Conjugation Un-conjugated

Alternate Names TGFB; DPD1; TGFbeta; CED; Transforming growth factor beta-1; LAP; TGF-beta-1

Application Instructions

Application table	Application	Dilution
	ELISA	1:3000 - 1:10000
	FACS	1:400 - 1:1000
	ICC/IF	1:400 - 1:1000
	IHC-P	Assay-dependent
	WB	1:2500 - 1:5000
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	

Properties

Purification	Affinity purification with immunogen.		
Buffer	PBS (pH 7.4) and 0.01% Thimerosal.		
Preservative	0.01% Thimerosal		
Concentration	1 mg/ml		
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.		

Bioinformation

Background

Gene Symbol TGFB1

Gene Full Name transforming growth factor, beta 1

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. This gene is frequently upregulated in tumor cells, and mutations in this gene result in Camurati-

Engelmann disease.[provided by RefSeq, Oct 2009]

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. 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. [UniProt]

Calculated Mw 44 kDa

PTM 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. [UniProt]

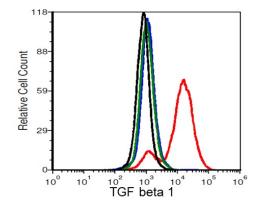
Cellular Localization Secreted, extracellular space, extracellular matrix. [UniProt]

Images

	Hoechst 33342	TGF beta 1	Merge
293T-TGF beta 1			
293T-TGF beta 2			
293T-TGF beta 3	きない		

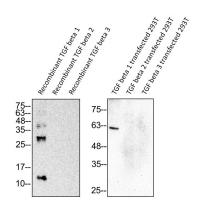
ARG66427 anti-TGF beta 1 antibody [SQab18129] ICC/IF image

Immunofluorescence: 293T cells were respectively transfected with TGF beta 1, beta 2 and beta 3 plasmid and fixed in 4% PFA, permeabilized with PBS containing 0.1% Triton X-100. Cells were stained with ARG66427 anti-TGF beta 1 antibody [SQab18129] (green) at 1:400 and cell nuclei were stained with Hoechst 33342 (blue).



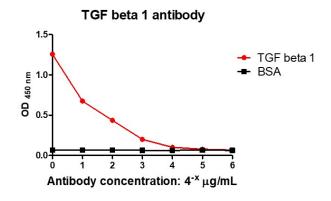
ARG66427 anti-TGF beta 1 antibody [SQab18129] FACS image

Flow Cytometry: 293T cells (black) were respectively transfected with TGF beta 1 (red), beta 2 (blue) and beta 3 (green) plasmid and stained with ARG66427 anti-TGF beta 1 antibody [SQab18129] at 1 μ g/ml dilution.



ARG66427 anti-TGF beta 1 antibody [SQab18129] WB image

Western blot: 25 ng of Recombinant TGF beta 1 protein, 25 ng of Recombinant TGF beta 2 protein, 25 ng of Recombinant TGF beta 3 protein, 30 μ g of TGF beta 1 transfected 293T, 30 μ g of TGF beta 2 transfected 293T and 30 μ g of TGF beta 3 transfected 293T stained with ARG66427 anti-TGF beta 1 antibody [SQab18129] at 1:2000 dilution.



ARG66427 anti-TGF beta 1 antibody [SQab18129] ELISA image

ELISA: Titration curve of ARG66427 anti-TGF beta 1 antibody [SQab18129]. Red: TGF beta 1; Black: BSA (negative control).