ARG10004
anti-TGF beta antibody [2E6]

Package: 100 µg
Store at: -20°C

Summary

Product Description	Mouse Monoclonal antibody [2E6] recognizes TGF beta
Tested Reactivity	Hu, Sheep
Tested Application	ELISA, Neut, WB
Host	Mouse
Clonality	Monoclonal
Clone	2E6
Isotype	IgG1, kappa
Target Name	TGF beta
Species	Human
Immunogen	TGF-β from human platelets
Conjugation	Un-conjugated
Alternate Names	TGFB; DPD1; TGFbeta; CED; Transforming growth factor beta-1; LAP; TGF-beta-1

Application Instructions

Application Note	ELISA: The antibody reacts with TGF-β.
	Western Blotting: This antibody, when used at concentration of 1-10 ng/mL, will allow visualization of 100 ng/lane of TGF-β.
	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Properties

Form	Liquid
Purification	Protein G affinity purified
Buffer	0.01M PBS (pH 7.0)
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.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Database links	
Gene Symbol	TGFB1
Gene Full Name	transforming growth factor, beta 1
Background	Transforming growth factor beta (TGF-β) has three isoforms (TGF-β1, TGF-β2, and TGF-β3) with similar functions. The cytokine is a homodimer linked by disulfide bind. Inside cells, the cytokine forms a small latent complex with latent associated peptide (LAP). This small complex binds to latent TGF-β binding protein (LTBP) to be secreted to extra-cellular matrix. Disassociation of the latent proteins from TGF-β results in the release of the cytokine to its receptor. The process is called activation, which can be influenced by various factors, including proteases, metalloproteases, extreme pH, mild acidic condition, reactive oxygen species and integrins. TGF-β is an anti-proliferation factor in normal cells. It increases the synthesis of p15 and p21, which can block the cyclin: CDK complex, and causes cells to stop at G1 phase. The cytokine can induce apoptosis through both SMAD and DAXX pathways. In cancer cells, TGF-β signaling is altered and TGF-β no longer stops cell proliferation.
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]
Research Area	Cancer antibody; Cell Biology and Cellular Response antibody; Developmental Biology antibody; Metabolism antibody; Signaling Transduction antibody
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.

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