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Product datasheet for DM1044

TGF beta 1 (TGFB1) Mouse Monoclonal Antibody [Clone ID: 2C5]

Product data:

Product Type:	Primary Antibodies
Clone Name:	2C5
Applications:	ELISA, WB
Recommended Dilution:	ELISA. Western Blot: This antibody when used at an antibody concentration of 5-20 ng/mL will allow visualization of 100 ng/lane of TGF-beta. Successful use in neutralizing assay was reported by some researchers. As this method has not been verified by Acris Antibodies, the application was deleted from the database. This does not necessarily exclude the use in such procedure.
Reactivity:	Human
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	TGF-β from human platelets
Specificity:	Western blotting demonstrated that this antibody reacts with the dimeric (25 kDa) and monomeric (12.5 kDa.) forms of TGF-beta under both non-reducing and reducing conditions respectively. This antibody recognizes both human platelet-derived and recombinant TGF-beta in ELISA.
Formulation:	0.01M PBS, pH 7.0 State: Azide Free State: Lyophilized purified IgG
Reconstitution Method:	Restore with double distillated water to adjust the final concentration to 1.0 mg/ml.
Purification:	Protein G affinity purified
Conjugation:	Unconjugated
Storage:	Store the antibody at -20°C. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	transforming growth factor beta 1

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Database Link: Entrez Gene 7040 Human
P01137

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.

Synonyms: TGFB, Transforming growth factor beta-1, TGF-beta-1