



Anti-Human TGF-beta1

20160311BB



FOR RESEARCH ONLY! NOT FOR HUMAN USE!

Cat.-no.:	101-M85
Size:	500 µg
Lot. No.:	According to product label

Preparation: Monoclonal antibodies were produced from a hybridoma using purified recombinant, insect cell derived, hTGF-beta-1. This IgG1k antibody was purified on a Protein G affinity column.

Target Background

Synonyms (Target):	LTBP1
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Transforming Growth Factor Beta 1, 2, and 3 (TGF-beta 1, TGF-beta 2, and TGF-beta 3) are highly pleiotropic cytokines that virtually all cell types secrete. TGF-beta molecules are proposed to act as cellular switches that regulate processes such as immune function, proliferation, and epithelial-mesenchymal transition. Targeted deletions of these genes in mice show that each TGF-beta isoform has some non-redundant functions: TGF-beta 1 is involved in hematopoiesis and endothelial differentiation; TGF-beta 2 affects development of cardiac, lung, craniofacial, limb, eye, ear, and urogenital systems; and TGF-beta 3 influences palatogenesis and pulmonary development. The full range of in vitro biological activities of TGF-beta 5 has not yet been explored. However, TGF-beta 1, TGF-beta 2, TGF-beta 3, and TGF-beta 5 have been found to be largely interchangeable in an inhibitory bioassay, and it is anticipated that TGF-beta 5 will show a spectrum of activities similar to the other TGF-beta family members. To date, the production of TGF-beta 5 has only been demonstrated in *Xenopus*.

Database References Target

Protein RefSeq:	NP_000651.1
Uniprot ID:	P01137
mRNA RefSeq:	NM_000660.4

Product Specifications

Species reactivity	Human
Cross reactivity	Human
Host	Mouse
Clonality	Monoclonal Antibody
Isotype	IgG2A _k
Purification	Protein G chromatography
Immunogen	recombinant human TGF-beta1
Formulation	lyophilized
Reconstitution buffer	water

Reconstitution: Reconstitute the antibody in sterile water to a concentration of 0.1 - 1.0 mg/ml.

Stability: Lyophilized antibody is stable at room temperature for up to 1 month. The reconstituted antibody is stable for at least 2 weeks at 2-8°C. Frozen aliquots are stable for at least 6 months when stored at -20°C.



AVOID REPEATED FREEZE AND THAW CYCLES!

Applications

Immunohistochemistry: This antibody stained formalin-fixed paraffin-embedded sections of human pancreas adenocarcinoma tissue. The recommended concentration is 5.0µg/ml with an overnight incubation at 4°C. An HRP-labeled polymer detection system was used with an alcohol-soluble AEC chromogen. Heat induced antigen retrieval with a pH 6.0 sodium citrate buffer is recommended. Optimal concentration and conditions may vary. *Tissue samples were provided by the Cooperative Human Tissue Network, which is funded by the National Cancer Institute.*

ELISA: In a sandwich ELISA (assuming 100µl/well), a concentration of 4.0-8.0 µg/ml of this antibody will detect at least 100 pg/ml of recombinant Human TGF-β1 when used in conjunction with compatible secondary reagents.

Western Blot: To detect human TGF-beta 1 by Western Blot analysis this antibody can be used at a concentration of 2.0 – 4.0 µg/ml. When used in conjunction with compatible secondary reagents the detection limit for recombinant human TGF-beta1 is 0.25 – 0.50 ng/lane, under reducing or non-reducing conditions.

NOTE: OPTIMAL DILUTIONS SHOULD BE DETERMINED BY EACH LABORATORY FOR EACH APPLICATION!