

Datasheet for ABIN107740

anti-TGFB1 antibody

4 Images

1 Publication

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Overview

Quantity:	100 µg
Target:	TGFB1
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This TGFB1 antibody is un-conjugated
Application:	Western Blotting (WB), ELISA

Product Details

Immunogen:	TGF beta 1 Antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to amino acids near the amino terminus of the mature growth factor (112 amino acids in length).
Isotype:	IgG
Characteristics:	Concentration Definition: by UV absorbance at 280 nm

Target Details

Target:	TGFB1
Alternative Name:	TGF beta 1 (TGFB1 Products)
Background:	TGF-beta-1 is a multifunctional cytokine that belongs to a superfamily of structurally related regulatory proteins, including three mammalian TGF-beta isoforms (TGF-beta-1, -beta-2, and -beta-3), activin/inhibins and bone morphogenetic proteins. The most abundant isoform, TGF-

Target Details

beta-1, is a 25kDa homodimer composed of two 12.5 kDa subunits joined by disulfide bonds. TGF-beta-1 is a highly conserved molecule; the amino acid sequence between human and mouse differs by only one residue. Although originally defined by its ability to cause anchorage independent cell growth and changes in cell morphology of rat fibroblasts, subsequent research has revealed that TGF-beta is actually a major growth inhibitor for most cell types. It is produced by a wide variety of cell and tissue types during all stages of cell differentiation. TGF-beta-1 sources include platelets, bone and soft tissues, such as placenta and kidneys. Synonyms: Camurati Engelmann disease antibody, CED antibody, Diaphyseal dysplasia 1 progressive antibody, DPD1 antibody, LAP antibody, Latency-associated peptide antibody, TGF beta 1 antibody

Gene ID: 7040, 339558

UniProt: [P01137](#)

Pathways: [EGFR Signaling Pathway](#), [Dopaminergic Neurogenesis](#), [Cellular Response to Molecule of Bacterial Origin](#), [Glycosaminoglycan Metabolic Process](#), [Regulation of Leukocyte Mediated Immunity](#), [Regulation of Muscle Cell Differentiation](#), [Positive Regulation of Immune Effector Process](#), [Cell-Cell Junction Organization](#), [Production of Molecular Mediator of Immune Response](#), [Ribonucleoside Biosynthetic Process](#), [Skeletal Muscle Fiber Development](#), [Regulation of Carbohydrate Metabolic Process](#), [Protein targeting to Nucleus](#), [Autophagy](#), [Cancer Immune Checkpoints](#)

Application Details

Application Notes: TGF beta 1 Antibody has been tested for use in ELISA and western blotting. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately 12.5 kDa in size corresponding to reduced mature TGFb1 by western blotting in the appropriate cell lysate or extract.

Restrictions: For Research Use only

Handling

Format: Liquid

Concentration: 0.43 mg/mL

Buffer: 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2

Preservative: Sodium azide

Handling

Precaution of Use: This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

Storage: -20 °C

Publications

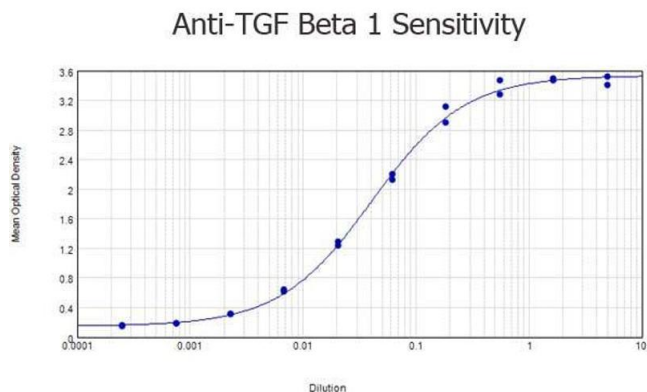
Product cited in: Chen, Chemaly, Liang, Kho, Lee, Park, Altman, Schechter, Hajjar, Tarzami: "Effects of CXCR4 gene transfer on cardiac function after ischemia-reperfusion injury." in: **The American journal of pathology**, Vol. 176, Issue 4, pp. 1705-15, (2010) ([PubMed](#)).

Neusser, Lindenmeyer, Moll, Segerer, Edenhofer, Sen, Stiehl, Kretzler, Gröne, Schlöndorff, Cohen: "Human nephrosclerosis triggers a hypoxia-related glomerulopathy." in: **The American journal of pathology**, Vol. 176, Issue 2, pp. 594-607, (2010) ([PubMed](#)).

Kioi, Vogel, Schultz, Hoffman, Harsh, Brown: "Inhibition of vasculogenesis, but not angiogenesis, prevents the recurrence of glioblastoma after irradiation in mice." in: **The Journal of clinical investigation**, Vol. 120, Issue 3, pp. 694-705, (2010) ([PubMed](#)).

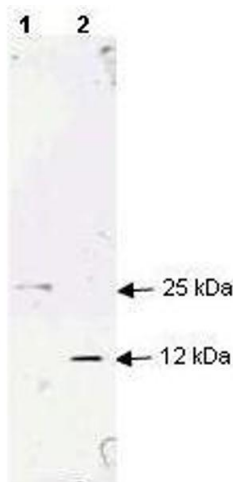
Shyu, Lin, Yang, Tzeng, Pang, Yen, Li: "Functional recovery of stroke rats induced by granulocyte colony-stimulating factor-stimulated stem cells." in: **Circulation**, Vol. 110, Issue 13, pp. 1847-54, (2004) ([PubMed](#)).

Petit, Szyper-Kravitz, Nagler, Lahav, Peled, Habler, Ponomaryov, Taichman, Arenzana-Seisdedos, Fujii, Sandbank, Zipori, Lapidot: "G-CSF induces stem cell mobilization by decreasing bone marrow SDF-1 and up-regulating CXCR4." in: **Nature immunology**, Vol. 3, Issue 7, pp. 687-94, (2002) ([PubMed](#)).



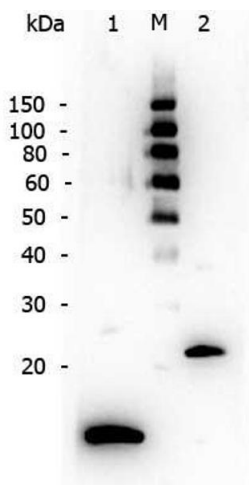
ELISA

Image 1. ELISA results of purified Rabbit anti-TGF Beta 1 Antibody tested against BSA-conjugated peptide of immunizing peptide. Each well was coated in duplicate with 0.1µg of conjugate. The starting dilution of antibody was 5µg/ml and the X-axis represents the Log10 of a 3-fold dilution. This titration is a 4-parameter curve fit where the IC50 is defined as the titer of the antibody. Assay performed using 3% fish gel, Goat anti-Rabbit IgG Antibody Peroxidase Conjugated (Min X Bv Ch Gt GP Ham Hs Hu Ms Rt & Sh Serum Proteins) and TMB ELISA Peroxidase Substrate .



Western Blotting

Image 2. Western blot analysis using Affinity Purified anti-TGF beta 1 antibody to detect human TGF beta 1. Each lane contains 250 ng of protein under non-reducing (lane 1) and reducing conditions (lane 2). Comparison to molecular weight markers (not shown) was used to estimate the indicated molecular weights. The blot was incubated with a 1:200 dilution of the antibody at room temperature for 1 h followed by detection using 800 labeled Goat-a-Rabbit IgG (H&L) diluted 1:2,500. 800 fluorescence image was captured using the Infrared Imaging System developed by LI-COR. IRDye is a trademark of LI-COR, Inc. Other detection systems will yield similar results.



Western Blotting

Image 3. Western Blot of Rabbit anti-TGF Beta 1 antibody. Lane 1: Reduced recombinant TGF Beta 1. Lane 2: Ladder. Lane 3: Non-reduced recombinant TGF Beta 1. Load: 250 ng per lane. Primary antibody: TGF Beta 1 antibody at 1:200 for overnight at 4°C. Secondary antibody: Peroxidase rabbit secondary antibody at 1:40,000 for 30 min at RT. Block: Blocking Buffer for Fluorescent Western Blotting (ABIN925618). Predicted/Observed size: 12 kDa/25 kDa, 12

kDa for reduced TGF Beta 1/25 kDa for non-reduced TGF Beta 1.

Please check the [product details page](#) for more images. Overall 4 images are available for ABIN107740.