

Human transforming growth factor, beta 1 ELISA Kit | TGFB1 elisa kit

Human Transforming Growth factor beta1, TGF-beta1 ELISA Kit

CATALOG #
AAA80444

REACTIVITY
Human

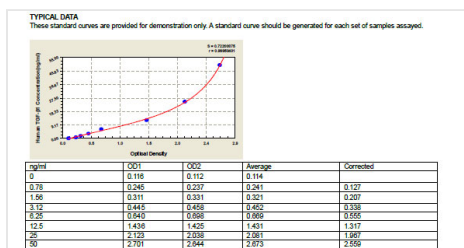
PRODUCT SYNONYMS

transforming growth factor; beta 1; Human Transforming Growth factor beta1; TGF-beta1 ELISA Kit; TGF-beta1 ELISA kit; CED; DPD1; LAP; TGFB; TGFbeta; TGF-beta 1 protein; latency-associated peptide; TGF-beta1; TGFB1 elisa kit

PRODUCT SPECIFICATIONS

Reactivity	Human
Specificity	This assay has high sensitivity and excellent specificity for detection of Human TGFB1. No significant cross-reactivity or interference between Human TGFB1 and analogues was observed.
Sequence Length	390
Samples	Serum, plasma, cell culture supernates
Detection Range	0.78 ng/ml-50 ng/ml
Sensitivity	0.747 ng/ml
Intra-assay Precision	Intra-assay Precision (Precision within an assay): CV% is less than 8% Three samples of known concentration were tested twenty times on one plate to assess. Inter-assay Precision (Precision between assays): CV% is less than 10% Three samples of known concentration were tested in twenty assays to assess.
Detection Wavelength	450 nm
Sample Volume	50-100ul
Protein Biological Process 1	Cytokine
Preparation and Storage	Unopened test kits should be stored at 2 to 8 degree C upon receipt. Please refer to pdf manual for further storage instructions.

IMAGES



Standard Curve (Sample)

ADDITIONAL INFORMATION

Related Product Information for TGFB1 elisa kit	Introduction: Transforming growth factor beta 1 or TGF-beta1 is a polypeptide member of the transforming growth factor beta superfamily of cytokines. It is a secreted protein hat performs many cellular functions, including the control of cell growth, cell proliferation, cell differentiation and apoptosis. TGF-beta1 was first identified in human platelets as a protein with a molecular mass of 25 kilodaltons with a potential role in wound healing. It was later characterized as a large protein precursor (containing 390 amino acids) that was proteolytically processed to produce a mature peptide of 112 amino acids. TGF-beta1 plays an important role in controlling the immune system, and shows different activities on different types of cell, or cells at different developmental stages. Most immune cells (or leukocytes) secrete TGF-beta1. Some T cells (e.g. regulatory T cells) release TGF-beta1 to inhibit the actions of other T cells. Interleukin 1- and interleukin 2-dependent proliferation of activated T cells and the activation of quiescent helper T cells and cytotoxic T cells is prevented by the activity of TGF-beta1. Similarly, TGF-beta1 can inhibit the secretion and activity of many other cytokines including interferon-gamma, tumor necrosis factor-alpha (TNF-alpha) and various interleukins. It can also decrease the expression levels of cytokine receptors, such as the IL-2 receptor to down-regulate the activity of immune cells. However, TGF-beta1 can also increase the expression of certain cytokines in T cells and promote their proliferation, particularly if the cells are immature. TGF-beta1 has similar effects on B cells that also vary according to the differentiation state of the cell. It inhibits proliferation and apoptosis of B cells, and plays a role in controlling the expression of antibody, transferrin and MHC class II proteins on immature and mature B cells. The effects of TGF-beta1 on macrophages and monocytes are predominantly suppressive; this cytokine can inhibit the proliferation of these cells and prevent their production of reactive oxygen and itrogen intermediates. However, as with other cell types, TGF-beta1 can also have the opposite effect on cells of myeloid origin. For example, TGF-beta1 acts as a hemoattractant, directing an immune response to some pathogens; macrophages and monocytes respond to low levels of TGF-beta1 in a chemotactic manner. urthermore, the expression of monocytic cytokines and phagocytic killing by macrophages can be increased by the action of TGF-beta1. Principle of the Assay: The microtiter plate provided in this kit has been pre-coated with an antibody specific to TGF-beta1. Standards or samples are then added to the appropriate microtiter plate wells with a biotin-conjugated antibody preparation specific for TGF-beta1 and Avidin conjugated to Horseradish Peroxidase (HRP) is added to each microplate well and incubated. Then a TMB (3,3',5,5' tetramethyl-benzidine) substrate solution is added to each well. Only those wells that contain TGF-beta1, biotin-conjugated antibody and enzyme-conjugated Avidin will exhibit a change in color. The enzyme-substrate reaction is terminated by the addition of a sulphuric acid solution and the color change is measured spectrophotometrically at a wavelength of 450 nm +/- 2 nm. The concentration of TGF-beta1 in the samples is then determined by comparing the O.D. of the samples to the standard curve.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	63025222
NCBI GeneID	7040
NCBI Accession #	NP_000651.3
NCBI GenBank Nucleotide #	NM_000660.5
UniProt Accession #	P01137; Q9UCG4; A8K792
Molecular Weight	44,341 Da
NCBI Official Full Name	transforming growth factor beta-1
NCBI Official Synonym Full Names	transforming growth factor, beta 1
NCBI Official Symbol	TGFB1
NCBI Official Synonym Symbols	CED; LAP; DPD1; TGFB; TGFbeta
NCBI Protein Information	transforming growth factor beta-1; TGF-beta-1; latency-associated peptide; prepro-transforming growth factor beta-1
UniProt Protein Name	Transforming growth factor beta-1
UniProt Gene Name	TGFB1
UniProt Synonym Gene Names	TGFB; TGF-beta-1; LAP
UniProt Entry Name	TGFB1_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://www.aaabiotech.com/tgfb1-human-elisa-kits/transforming-growth-factor-beta-1/80444>