

Human TNF-alpha CLIA Kit | TNF-alpha clia kit

TNF-alpha (Human) LumiAb ELISA Kit

CATALOG #
AAA318562

REACTIVITY
Human

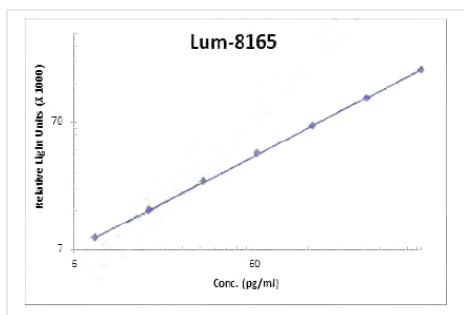
PRODUCT SYNONYMS

TNF-alpha; TNF-alpha (Human) LumiAb ELISA Kit; Human TNF-alpha; Tumor necrosis factor; Cachectin; Tumor necrosis factor ligand superfamily member 2; TNFSF2; TNF-alpha clia kit

PRODUCT SPECIFICATIONS

Reactivity	Human
Specificity	The LumiAb Human TIMP-1 ELISA is capable of recognizing both recombinant and naturally produced Human TIMP-1 proteins. The antigens listed below were tested at 50 ng/ml and did not exhibit significant cross reactivity or interference.
Sequence Length	233
Assay Type	Quantitative Sandwich
Sensitivity	4 pg/ml.
Preparation and Storage	Store at 4 degree C for 6 months.

IMAGES



Standard Curve (Sample)

ADDITIONAL INFORMATION

Related Product Information for TNF-alpha clia kit	Principle of the Assay: The LumiAb Human TIMP-1 Chemiluminescent ELISA Kit contains the components necessary for quantitative determination of natural or recombinant Human TIMP-1 concentrations within any experimental sample including cell lysates, serum and plasma. This particular immunoassay utilizes the quantitative technique of a "Sandwich" Enzyme-Linked Immunosorbent Assay (ELISA) where the target protein (antigen) is bound in a "sandwich" format by the primary capture antibodies coated to each well-bottom and the secondary detection antibodies added subsequently by the investigator. The capture antibodies coated to the bottom of each well are specific for a particular epitope on Human TIMP-1 while the user-added detection antibodies bind to epitopes on the captured target protein. Amid each step of the procedure, a series of wash steps must be performed to ensure the elimination of non-specific binding between proteins to other proteins or to the solid phase. After incubation and "sandwiching" of the target antigen, a peroxidase enzyme is conjugated to the constant heavy chain of the secondary antibody (either covalently or via Avidin/Streptavidin-Biotin interactions), allowing for a sensitive luminescent reaction to ensue upon substrate addition. When the Peroxide Enhancer solution is added, the reaction catalyzed by peroxidase yields light that is representative of the antigen concentration. After a brief incubation, the microplate can be read with a luminometer, allowing for generation of a standard curve and subsequent determination of protein concentration!!Background/Introduction: Human TIMP-1 or Tissue Inhibitor of Metalloproteinases, also known as Fibroblast Collagenase Inhibitor, is a 207 amino acid cytokine protein encoded by the TIMP1 gene located at locus Xp11.3-Xp11.23 on the X chromosome. After initial synthesis, the 23 residue N-terminal signal sequence is removed, allowing for the 184 residue TIMP-1 protein to fold properly. Belonging to the TIMP gene family, the expressed proteins are natural inhibitors of the matrix metalloproteinases (MMPs), a group of peptidases involved in degradation of the extracellular matrix. TIMP-1 complexes with metalloproteinases and irreversibly inactivates them by binding to their catalytic zinc cofactor. In addition to its inhibitory role against most of the known MMPs, the encoded protein is able to promote cell proliferation in a wide range of cell types, and may also have an anti-apoptotic function. Transcription of this gene is highly inducible in response to many cytokines and hormones. In addition, the expression from some but not all inactive X chromosomes suggests that this gene inactivation is polymorphic in human females. Also, TIMP-1 is known to mediate erythropoiesis in vitro, but unlike IL-3, it is species-specific, stimulating the growth and differentiation of only human and mouse erythroid progenitors. It typically acts on MMP-1, MMP-2, MMP-3, MMP-7, MMP-8, MMP-9, MMP-10, MMP-11, MMP-12, MMP-13 and MMP-16 but does not act on MMP-14. Lastly, the activity of TIMP-1 is dependent on the presence of disulfide bonds.
Product Categories/Family for TNF-alpha clia kit	Luminometer Sandwich ELISA

NCBI AND UNIPROT INFORMATION

NCBI GI #	37210
NCBI GeneID	7124
UniProt Accession #	P01375
NCBI Official Full Name	TNF-alpha
NCBI Official Synonym Full Names	tumor necrosis factor
NCBI Official Symbol	TNF
NCBI Official Synonym Symbols	DIF; TNFA; TNFSF2; TNLG1F; TNF-alpha
NCBI Protein Information	tumor necrosis factor
UniProt Protein Name	Tumor necrosis factor
UniProt Gene Name	TNF
UniProt Synonym Gene Names	TNFA; TNFSF2; TNF-a; NTF; ICD1; ICD2
UniProt Entry Name	TNFA_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.