

Mouse TNF-alpha ELISA Kit | TNF-alpha elisa kit

TNF-alpha (Murine) OmniKine ELISA Kit

CATALOG #
AAA315690

REACTIVITY
Mouse

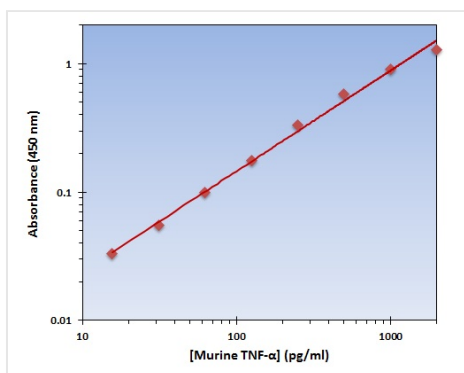
PRODUCT SYNONYMS

TNF-alpha; TNF-alpha (Murine) OmniKine ELISA Kit; Tumor necrosis factor; Cachectin; Tumor necrosis factor ligand superfamily member 2; TNFSF2; TNF-alpha elisa kit

PRODUCT SPECIFICATIONS

Reactivity	Mouse
Specificity	The OmniKine™ Murine TNF-alpha ELISA is capable of recognizing both recombinant and naturally produced Murine TNF-alpha proteins. The antigens listed below were tested at 50 ng/ml and exhibited 100% cross reactivity.
Form/Format	12 x 8-Well Microstrips
Sequence Length	219
Assay Type	Quantitative Sandwich
Sensitivity	32-2000 pg/ml
Detection Method	Colorimetric 450 nm
Subtype	None
Preparation and Storage	Store entire kit at 4 degree C until use.

IMAGES



Application Data

The OmniKine Murine TNF-alpha ELISA Kit allows for the detection and quantification of endogenous levels of natural and/or recombinant Murine TNF-alpha proteins within the range of 16-2000 pg/ml.

ADDITIONAL INFORMATION

Related Product Information for TNF-alpha elisa kit

Background: Murine TNF-alpha or Tumor Necrosis Factor alpha, also known as Cachectin, is a 235 amino acid cytokine protein expressed from the Tnf gene located on chromosome 17. The 235 residue chain exists primarily as the membrane form of TNF-alpha whereas the 156 residue form, created by proteolytic processing from the N-terminal end, exists primarily as the soluble form. The membrane form contains a 35 residue cytoplasmic topological domain, a 21 residue helical membrane domain, and a 179 residue extracellular topological domain. TNF-alpha is a cytokine that binds to TNFRSF1A/TNFR1 and TNFRSF1B/TNFR. It is mainly secreted by macrophages and can induce cell death of certain tumor cell lines. The cytokine is potent pyrogen causing fever by direct action or by stimulation of interleukin-1 secretion and is implicated in the induction of cachexia. Under certain conditions, it can stimulate cell proliferation and induce cell differentiation.

Principle of the Assay: The OmniKine™ Murine TNF-alpha ELISA Kit contains the components necessary for quantitative determination of natural or recombinant Murine TNF-alpha 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 Murine TNF-alpha 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 colorimetric reaction to ensue upon substrate addition. When the substrate TMB (3, 3', 5, 5'-Tetramethylbenzidine) is added, the reaction catalyzed by peroxidase yields a blue color that is representative of the antigen concentration. Upon sufficient color development, the reaction can be terminated through addition of Stop Solution (2 N Sulfuric Acid) where the color of the solution will turn yellow. The absorbance of each well can then be read by a spectrophotometer, allowing for generation of a standard curve and subsequent determination of protein concentration.

NCBI AND UNIPROT INFORMATION

NCBI GI #	518831589
NCBI GeneID	21926
NCBI Accession #	NP_001265530.1
NCBI GenBank Nucleotide #	NM_001278601.1
UniProt Accession #	P06804; O35853; Q62326; Q91VF3
Molecular Weight	25,896 Da
NCBI Official Full Name	tumor necrosis factor isoform 2
NCBI Official Synonym Full Names	tumor necrosis factor
NCBI Official Symbol	Tnf
NCBI Official Synonym Symbols	DIF; Tnfa; TNF-a; TNFSF2; Tnlg1f; Tnfsf1a; TNFalpha; 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

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.