

Human Midkine ELISA Kit | MDK elisa kit

Midkine (Human) OmniKine ELISA Kit

CATALOG #
AAA315641

REACTIVITY
Human

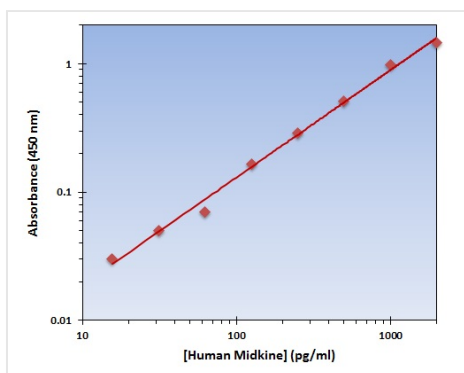
PRODUCT SYNONYMS

Midkine; Midkine (Human) OmniKine ELISA Kit; MK; Amphiregulin-associated protein; ARAP; Midgestation and kidney protein; Neurite outgrowth-promoting factor 2; Neurite outgrowth-promoting protein; MK1; NEGF2; MDK elisa kit

PRODUCT SPECIFICATIONS

Reactivity	Human
Specificity	The antigens listed below were tested at 50 ng/ml and did not exhibit significant cross reactivity or interference.
Form/Format	12 x 8-Well Microstrips
Sequence Length	143
Assay Type	Quantitative Sandwich
Preparation and Storage	Store entire kit at 4 degree C until use.

IMAGES



Application Data

The OmniKine Human Midkine ELISA Kit allows for the detection and quantification of endogenous levels of natural and/or recombinant Human Midkine proteins within the range of 32-2000 pg/ml.

ADDITIONAL INFORMATION

Related Product Information for MDK elisa kit

Principle of the Assay: The OmniKine™ Human Midkine ELISA Kit contains the components necessary for quantitative determination of natural or recombinant Human Midkine 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 Midkine 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.

Background/Introduction: Human Midkine, also known as Amphiregulin-Associated Protein, is a 143 amino acid cytokine protein encoded by the MDK gene located at locus 11p11.2 on chromosome 11. After initial synthesis, the protein undergoes proteolytic processing to remove the 20 residue signal sequence from the 123 residue Midkine peptide, allowing the protein to properly fold and mature. Midkine is a retinoic acid-responsive, heparin-binding growth factor expressed in various cell types during embryogenesis that promotes angiogenesis, cell growth, and cell migration. Human Midkine is also expressed in several carcinomas, suggesting that it may play a role in tumorigenesis, perhaps through its effects on angiogenesis. Belonging to the pleiotrophin family, Midkine is also involved in early fetal adrenal gland development as well as neointima formation after arterial injury, possibly by mediating leukocyte recruitment.

NCBI AND UNIPROT INFORMATION

NCBI GI #	59894796
NCBI GeneID	4192
NCBI Accession #	NP_001012333.1
NCBI GenBank Nucleotide #	NM_001012333.2
UniProt Accession #	P21741; Q2LEK4; Q9UCC7
Molecular Weight	9,512 Da
NCBI Official Full Name	midkine isoform a
NCBI Official Synonym Full Names	midkine
NCBI Official Symbol	MDK
NCBI Official Synonym Symbols	MK; ARAP; NEGF2
NCBI Protein Information	midkine
UniProt Protein Name	Midkine
UniProt Gene Name	MDK
UniProt Synonym Gene Names	MK1; NEGF2; MK; ARAP

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.