Midkine (MK) ELISA Kit for Rat

PRODUCT OVERVIEW

Product Name	Midkine (MK), ELISA Kit
Full Product Name	Rat Midkine (MK) ELISA Kit
Product Gene Name	MK elisa kit
Product Synonym Names	MDK; ARAP; NEGF2; Neurite Growth-Promoting Factor 2; Amphiregulin-associated protein; Midgestation and kidney protein; Neurite outgrowth-promoting factor 2
Species Reactivity	Rat
Assay Type	Double-antibody Sandwich
Samples	Serum, Plasma and Other Biological Fluids
Detection Range	15.62-1000pg/mL
Sensitivity	< 7.2pg/mL
Specificity	This assay has high sensitivity and excellent specificity for detection of Midkine (MK). No significant cross-reactivity or interference between Midkine (MK) and analogues was observed.
Preparation and Storage	The stability of kit is determined by the loss rate of activity. The loss rate of this kit is less than 5% within the expiration date under appropriate storage condition. To minimize extra influence on the performance, operation procedures and lab conditions, especially room temperature, air humidity, incubator temperature should be strictly controlled. It is also strongly suggested that the whole assay is performed by the same operator from the beginning to the end.
Molecular Weight	9,512 Da
OMIM	M69148 mRNA
3D Structure	ModBase 3D Structure for P21741
Supply Chain Verification	Manufactured in a lab with traceable raw materials. Bulk orders can typically be prepared to the customer's specifications, please inquire.
Application	Enzyme-linked immunosorbent assay for Antigen Detection.
Intra-assay Precision (Precision within an assay)	3 samples with low, middle and high level Midkine (MK) were tested 20 times on one plate, respectively.
Inter-assay Precision (Precision between assays)	3 samples with low, middle and high level Midkine (MK) were tested on 3 different plates, 8 replicates in each plate.
CV(%) =	SD/meanX100
Intra-Assay	CV<10%
Inter-Assay	CV<12%
ISO Certification	Manufactured in an ISO 9001:2008 and ISO 13485:2003 Certified Laboratory.

Related Product Information for MK elisa kit	The test principle applied in this kit is Sandwich enzyme immunoassay. The microtiter plate provided in this kit has been pre-coated with an antibody specific to Midkine (MK). Standards or samples are then added to the appropriate microtiter plate wells with a biotin-conjugated antibody specific to Midkine (MK). Next, Avidin conjugated to Horseradish Peroxidase (HRP) is added to each microplate well and incubated. After TMB substrate solution is added, only those wells that contain Midkine (MK), biotin-conjugated antibody and enzyme-conjugated Avidin will exhibit a change in color. The enzyme-substrate reaction is terminated by the addition of sulphuric acid solution and the color change is measured spectrophotometrically at a wavelength of 450nm ± 10nm. The concentration of Midkine (MK) in the samples is then determined by comparing the O.D. of the samples to the standard curve.
Other Notes	Small volumes of MK elisa kit vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for MK purchase	MBS2702184 is a ready-to-use microwell, strip plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Midkine (MK) ELISA Kit target analytes in biological samples. The concentration gradients of the kit standards or positive controls render a theoretical kit detection range in biological research samples containing MK. The ELISA analytical biochemical technique of the MBS2702184 kit is based on MK antibody-MK antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect MK antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, MK. Appropriate sample types may include undiluted body fluids and/or tissue homogenates, secretions. Quality control assays assessing reproducibility identified the intra-assay CV (%) and inter-assay CV(%).

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for MK. It may not necessarily be applicable to this product.

NCBI GI #	396080281
NCBI GeneID	4192
NCBI Accession #	NP_001257480.1
UniProt Primary Accession #	P21741
UniProt Secondary Accession #	Q2LEK4; Q9UCC7
UniProt Related Accession #	P21741
GenBank Nucleotide #	NM_001270551.1
NCBI Official Full Name	midkine isoform a
NCBI Official Synonym Full Names	midkine
NCBI Official Symbol	MDK
NCBI Official Synonym Symbols	MK; ARAP; NEGF2
UniProt Protein Name	Midkine
UniProt Synonym Protein Names	Amphiregulin-associated protein; ARAP; Midgestation and kidney protein; Neurite outgrowth-promoting factor 2; Neurite outgrowth-promoting protein
Protein Family	Midkine
UniProt Gene Name	MDK
UniProt Synonym Gene Names	MK1; NEGF2; MK; ARAP
NCBI Protein Information	midkine
NCBI Summary for MK	This gene encodes a member of a small family of secreted growth factors that binds heparin and responds to retinoic acid. The encoded protein promotes cell growth, migration, and angiogenesis, in particular during tumorigenesis. This gene has been targeted as a therapeutic for a variety of different disorders. Alternatively spliced transcript variants encoding multiple isoforms have been observed. [provided by RefSeq, Jul 2012]

UniProt Comments for MK	Developmentally regulated, secreted growth factor homologous to pleiotrophin (PTN), which has heparin binding activity. Binds anaplastic lymphoma kinase (ALK) which induces ALK activation and subsequent phosphorylation of the insulin receptor substrate (IRS1), followed by the activation of mitogen-activated protein kinase (MAPK) and PI3-kinase, and the induction of cell proliferation. Involved in neointima formation after arterial injury, possibly by mediating leukocyte recruitment. Also involved in early fetal adrenal gland development ().
Research Articles on MK	**1.** According to our results, serum MK has greater diagnostic value in diagnosing cancer, however, more reliable studies in larger cohort should be conducted to evaluate the diagnostic accuracy of serum MK.
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
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Product Note	Select online data sheet information is drawn from bioinformatics databases, occasionally resulting in ambiguous or non-relevant product information. It is the responsibility of the customer to review, verify, and evaluate the information to make sure it matches their requirements before purchasing the kit. Our ELISA Kit assays are dynamic research tools and sometimes they may be updated and improved. If the format of this assay is important to you then please request the current manual or contact our technical support team with a presales inquiry before placing an order. We will confirm the current details of the assay. We cannot guarantee the sample manual posted online is the most current manual, it is intended to serve as an example only. Please refer to the instructions For Use provided with the assay kit for precise details.

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