

Midkine Active Protein | MDK active protein

Midkine Protein, Human, Recombinant

CATALOG #
AAA257854

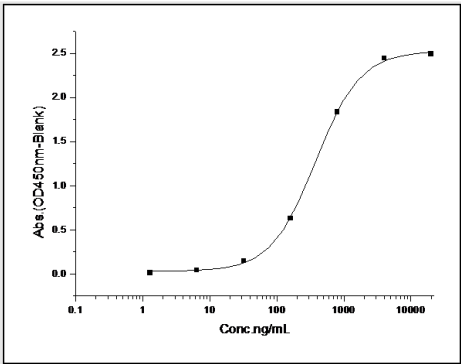
HOST
Baculovirus-Insect Cells

PRODUCT SYNONYMS

Midkine; Midkine Protein; Human; Recombinant; Human Midkine/MDK Protein; ARAP Protein; MK Protein; NRG1 Protein; midkine (neurite growth-promoting factor 2); MDK active protein

PRODUCT SPECIFICATIONS

Host	Baculovirus-Insect Cells
Purity/Purification	>95% as determined by SDS-PAGE
Form/Format	Lyophilized from sterile 50mM PBS, 1 M NaCl, pH6.8. Normally 5%-8% trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the hard copy of CoA.
Sequence	Met1-Asp143
Species	Human
Endotoxin	<1.0EU per ug of the protein as determined by the LAL method
Predicted N Terminal	Val 21
Tag	Native
Protein Construction	A DNA sequence encoding the human MDK (P21741)(Met 1-Asp 143) was expressed and purified.
Reconstitution	A hardcopy of COA with reconstitution instruction is sent along with the products. Please refer to it for detailed information.
Activity	Measured by its binding ability in a functional ELISA. Immobilized human MDK at 10ug/ml (100uL/well) can bind mouse SDC4-Fc with a linear range of 0.16-1.25ug/ml.
Preparation and Storage	Samples are stable for up to twelve months from date of receipt at -20 degree C to -80 degree C. Store it under sterile conditions at -20 degree C to -80 degree C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles. In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice.



SDS-PAGE

Application Data
Measured by its binding ability in a functional ELISA. Immobilized human MDK at 10 ug/ml (100 ul/well) can bind mouse SDC4-Fc with a linear range of 0.16-1.25 ug/ml.

ADDITIONAL INFORMATION

Related Product Information for MDK active protein	Background: Midkine (MK or MDK) also known as neurite growth-promoting factor 2 (NEGF2) is a basic heparin-binding growth factor of low molecular weight, and forms a family with pleiotrophin. Midkine is a retinoic acid-responsive, heparin-binding growth factor expressed in various cell types during embryogenesis. It promotes angiogenesis, cell growth, and cell migration. Midkine is also expressed in several carcinomas, suggesting that it may play a role in tumorigenesis, perhaps through its effects on angiogenesis. Midkine 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. Midkine is involved in neointima formation after arterial injury, possibly by mediating leukocyte recruitment. Also involved in early fetal adrenal gland development. Midkine exhibited increased expression in the breast carcinomas but showed much lower expression in the normal breast tissue. Thus, it can be used as a breast carcinomas marker.
References	Kadomatsu K, et al. (2004) Midkine and pleiotrophin in neural development and cancer. Cancer Lett. 204(2): 127-43. Muramatsu H, et al. (1993) Midkine, a retinoic acid-inducible growth/differentiation factor: immunochemical evidence for the function and distribution. Dev Biol. 159(2): 392-402. Muramatsu T. (2002) Midkine and pleiotrophin: two related proteins involved in development, survival, inflammation and tumorigenesis. J Biochem. 132(3): 359-71. Kadomatsu K, et al. (2004) Midkine and pleiotrophin in neural development and cancer. Cancer Lett. 204(2): 127-43.

NCBI AND UNIPROT INFORMATION

NCBI GI #	396080281
NCBI GeneID	4192
NCBI Accession #	NP_001257480.1
NCBI GenBank Nucleotide #	NM_001270551.1
UniProt Accession #	P21741; Q2LEK4; Q9UCC7
Molecular Weight	15,585 Da
NCBI Official Full Name	midkine isoform a
NCBI Official Synonym Full Names	midkine (neurite growth-promoting factor 2)
NCBI Official Symbol	MDK
NCBI Official Synonym Symbols	MK; ARAP; NEGF2
NCBI Protein Information	midkine; retinoic acid inducible factor; amphiregulin-associated protein; midgestation and kidney protein; neurite outgrowth-promoting factor 2
UniProt Protein Name	Midkine

UniProt Gene Name	MDK
UniProt Synonym Gene Names	MK1; NEGF2; MK; ARAP
UniProt Entry Name	MK_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/baculovirus-mdk-active-protein/midkine/257854>