

## MDK

### Recombinant Human Midkine

<b>Catalog No.</b>	CRM900A CRM900B CRM900C	<b>Quantity:</b>	5 µg 20 µg 1.0 mg
<b>Alternate Names:</b>	ARAP, MK, NEGF2, Neurite growth-promoting factor 2		
<b>Description:</b>	<p>Midkine, also named MK, MK1, NEGF 2, is belonging to the neurotrophic and developmentally-regulated heparin-binding molecules family. It is encoded by the MDK gene. The Midkine protein includes five intrachain disulfide bonds which hold two domains and there are three antiparallel beta-sheets in each domain. A chondroitin sulfate proteoglycan, protein-tyrosine phosphatase zeta (PTPzeta), is a receptor for MK. MK promotes the growth, survival, and migration of various cells, and plays roles in neurogenesis and epithelial mesenchymal interactions during organogenesis. The predicted molecular weight is approximately 13.3 kDa, based on a mature peptide length of 118 amino acid residues in the mouse and 121 amino acid residues in the human. Across species, MK shows 87 % identity between the human and murine proteins. Recombinant human Midkine is a single non-glycosylated polypeptide chain containing 123 amino acids.</p>		
<b>Source:</b>	<i>E. coli</i>		
<b>Molecular Weight:</b>	13.4 kDa		
<b>Formulation:</b>	Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH7.4.		
<b>Purity:</b>	>97% by SDS-PAGE and HPLC analyses		
<b>Endotoxin Level:</b>	<1 EU/µg as determined by LAL method		
<b>Biological Activity:</b>	Fully biologically active when compared to standard. The biological activity determined by a chemotaxis bioassay using human neutrophils is in a concentration range of 0.1-10 ng/ml.		
<b>Amino Acid Sequence:</b>	VAKKKDKVKK GPGSECAEW AWGPCTPSSK DCGVGFREGT CGAQTQRIRC RVPCNWKKEF GADCKYKFEN WGACDGGTGT KVRQGTLKKA RYNAQCQETI RVTKPCTPKT KAKAKAKKGK GKD		
<b>Reconstitution:</b>	<b>Centrifuge vial prior to opening.</b> Add sterile distilled water or aqueous buffer to a concentration of 0.1-1.0 mg/ml. Further dilutions should be made in appropriate buffered solutions.		
<b>Storage &amp; Stability:</b>	The lyophilized protein is stable at 2-8°C. Upon receipt, store desiccated at -20°C. After reconstitution, the preparation is stable for up to one week at 2-8°C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20°C to -80°C. For long term storage of reconstituted protein, it is recommended that a carrier protein such as 0.1% BSA or HSA be added. This depends on the particular application. <b>Avoid repeated freeze/thaw cycles.</b>		

NOT FOR HUMAN USE. FOR RESEARCH ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.

