Mdk
Recombinant Rat Midkine

Catalog No.	CRR010A	**Quantity:**	5 µg
	CRR010B		20 µg
	CRR010C		1 mg

Alternate Names: MK, Mek

Description: Midkine, also named MK, MK1, and NEGF 2, belongs to the neurotrophic and developmentally-regulated heparin-binding molecules family and is encoded by the MDK gene. Midkine includes five intrachain disulfide bonds that hold two domains, each which contains three antiparallel beta-sheets. 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 13.2 kDa, based on a mature peptide length of 118 amino acid residues in the mouse and 121 amino acid residues in the human. Mature rat midkine shares 99% and 91% aa sequence identity with human and mouse midkine, respectively.

Recombinant Rat Midkine is a single non-glycosylated polypeptide chain containing 120 amino acids.

Gene ID: 81517

Source: *E.coli*

Molecular Weight: 13.2 kDa

Formulation: Lyophilized from a 0.2 μm filtered concentrated solution in 2 × PBS, pH7.4.

Purity: >96% by SDS-PAGE and HPLC analyses.

Endotoxin Level: <1 EU/µg as determined by LAL method.

Biological Activity: Fully biologically active when compared to standard. The biological activity determined by a chemotaxis bioassay using human neutrophils is in a concentration range of 10-100 ng/ml.

Amino Acid Sequence: VAKKKDKVKK GSECSEWTWG PCTPSSKDCG MGFREGTCGA QTQRIHCKVP CNWKKEFGAD CKYKFESWGA CDGSTGTKAR QGTLKKARYN AQCQETIRVT KPCTSKTKSK AKAKKGKGKD

Reconstitution: **Centrifuge vial prior to opening.** 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.

Storage & Stability: 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. **Avoid repeated freeze/thaw cycles.**

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