

hMidkine Protein

Human Midkine, Recombinant, E. coli Catalog # PG10024

Specification

hMidkine Protein - Product Information

hMidkine Protein - Additional Information

Storage -20°C

Precautions

hMidkine Protein is for research use only and not for use in diagnostic or therapeutic procedures.

hMidkine Protein - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

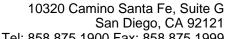
hMidkine Protein - Images

hMidkine Protein - Background

Midkine is a heparin-binding multifunctional protein that has anti-apoptotic properties and promotes cell migration and neurite process formation. Midkine is induced by tissue injury, and is believed to participate in tissue repair.1,2 Midkine has various activities related to neurogenesis; it enhances the survival of embryonic neurons, migration of neurons, neurite outgrowth,1 and clustering of acetylcholine receptors at the neuromuscular junction. Midkine has in vitro neurotrophic activity for dorsal root ganglia and midbrain dopaminergic neurons.3-5 Midkine activities in tissue repair processes include enhanced migration of macrophages, neutrophils, and osteoblasts.6 Midkine promotes fibrinolytic activity of endothelial cells,7 and synthesis of collagens and glycosaminoglycans in fibroblasts.8,9 In the adult, Midkine expression is restricted to certain tissues.2,11 However, protein expression is induced during inflammation, repair, and oncogenesis.2,11 High expression of Midkine is observed in a variety of human carcinomas (gastric, colon, pancreatic, lung, breast, urinary bladder).12 Serum or urinary levels of truncated Midkine mRNA, with a high specificity for tumor tissues may be used as tumor markers.13

hMidkine Protein - References

1. Kaneda, N.et al.(1996)]. Biochem. (Tokyo) 119,1150.2. Muramatsu, T. (2002) J. Biochem.





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(Tokyo) 132,359.3. Asai, T.et al.(1997)Biochem. Biophys. Res. Commun. 236,66.4. Muramatsu, T.(1995)Nihon Shinkei Seishin Yakurigaku Zasshi. 15,275.5 . Haynes, L.et al.(2001)Prog. Brain Res. 132,313.6 . Hayashi, K.et al.(2001)Glycoconj. J. 18,401.7 . Choudhuri, R.et al.(1997)Cancer Res. 57,1814.8 . Kadomatsu, K.(2000)Nippon Rinsho. 58,1337.9 . Kurosawa, N.et al. (2000)Eur. J. Biochem. 267,344.10 . Kadomatsu, K.et al.(1990)J. Cell Biol. 110,607.11 . Kurtz, A.et al.(1995)Crit. Rev. Oncog. 6,151.12 . Shimada, H.et al.(2003)Cancer Sci. 94,628.13 . Shimada, H. et al.(2003)Oncol. Rep. 10,411.