Recombinant Mouse Midkine protein(N-His)

Catalog Number: PKSM041513

Note: *Centrifuge before opening to ensure complete recovery of vial contents.*

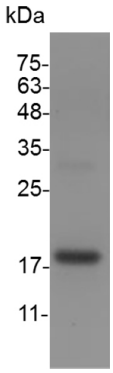
Description

Species	Mouse
Source	E.coli-derived Mouse Midkine protein Lys 23-Glu 209, with an C-terminal His
Calculated MW	14.0 kDa
Observed MW	17 kDa
Accession	P12025
Bio-activity	Not validated for activity

Properties

Purity	> 98 % as determined by reducing SDS-PAGE.
Endotoxin	< 0.1 EU per μg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 ℃. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile PBS, pH 7.4. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 98 % as determined by reducing SDS-PAGE.

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.

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