**BACKGROUND**

Midkine, or MK, is a 15 kDa heparin-binding molecule involved in the regulation of growth and differentiation during embryogenesis. MK expression is tightly regulated during embryonic development by steroid receptors of the retinoic acid superfamily. The mature human MK protein is 118 amino acids in length and contains five intrachain disulfide bonds. MK is a non-glycosylated protein that shows greater than 87% identity between human and mouse. The carboxy terminus of MK contains the principle heparin-binding site and the molecule’s neurite-promoting sequences; both the amino and carboxy terminal sequences are required for the molecule’s neurotrophic properties. An association between overexpression of MK and colon adenocarcinoma has been shown in families suffering from familial polyposis. In addition, MK functions to enhance the activity of plasminogen activator (PA). The gene encoding MK maps to human chromosome 11q11.2.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: MDK (human) mapping to 11p11.2; Mdk (mouse) mapping to 2 E1.

**SOURCE**

MK (M-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of MK of mouse origin.

**PRODUCT**

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Blocking peptide available for competition studies, sc-1398 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

**APPLICATIONS**

MK (M-18) is recommended for detection of precursor and mature midkine of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for MK siRNA (h): sc-39711, MK siRNA (m): sc-39712, MK shRNA Plasmid (h): sc-39711-SH, MK shRNA Plasmid (m): sc-39712-SH, MK shRNA (h) Lentiviral Particles: sc-39711-V and MK shRNA (m) Lentiviral Particles: sc-39712-V.

Molecular Weight of MK: 13 kDa.

**DATA**

MK (M-18) sc-1398. Western blot analysis of human recombinant MK.

**SELECT PRODUCT CITATIONS**


**STORAGE**

Store at 4°C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

**RESEARCH USE**

For research use only, not for use in diagnostic procedures.

**Try MK (A-9): sc-46701, our highly recommended monoclonal alternative to MK (M-18).**