

Anti-Midkine/MDK Antibody

Catalog Number: RP1051

About MDK

Midkine (MK or MDK), also known as neurite growth-promoting factor 2 (NEGF2), is a protein that in humans is encoded by the MDK gene. Midkine is a basic heparin-binding growth factor of low molecular weight, and forms a family with pleiotrophin (NEGF1, 46% homologous with MK). It is a nonglycosylated protein, composed of two domains held by disulfide bridges. It is a developmentally important retinoic acid-responsive gene product strongly induced during mid-gestation, hence the name midkine. Restricted mainly to certain tissues in the normal adult, it is strongly induced during oncogenesis, inflammation and tissue repair. Midkine is pleiotropic, capable of exerting activities such as cell proliferation, cell migration, angiogenesis and fibrinolysis. A molecular complex containing receptor-type tyrosine phosphatase zeta (PTPzeta), low density lipoprotein receptor-related protein (LRP1), anaplastic leukemia kinase (ALK) and syndecans is considered to be its receptor.

Overview

Product Name	Anti-Midkine/MDK Antibody
Reactive Species	Human
Description	Boster Bio Anti-Midkine/MDK Antibody catalog # RP1051. Tested in WB applications. This antibody reacts with Human.
Application	WB
Clonality	Polyclonal
Formulation	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg Na ₃ N.
Storage Instructions	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	P21741

Technical Details

Immunogen	E.coli-derived human Midkine recombinant protein (Position: V21-D143). Human Midkine shares 87% and 89% amino acid (aa) sequence identity with mouse and rat Midkine, respectively.
Predicted Reactive Species	Bovine
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.
Cross Reactivity	No cross-reactivity with other proteins
Isotype	Rabbit IgG

Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Dilute the sample so that the expected range of concentrations fall within the detection range of this kit. If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples. Some PubMed article(s) citing the expression level of this target are as follows: Boster Bio's internal QC testing used: Western blot, 0.1-0.5ug/ml, Human

Anti-Midkine/MDK Antibody (RP1051) Images

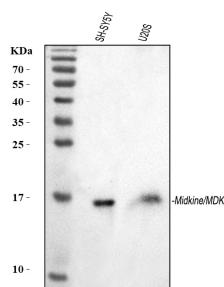


Figure 1. Western blot analysis of MDK using anti-MDK antibody (RP1051).

Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human SH-SY5Y whole cell lysates,

Lane 2: human U2OS whole cell lysates.

After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-MDK antigen affinity purified polyclonal antibody (Catalog # RP1051) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for MDK at approximately 16 kDa. The expected band size for MDK is at 16 kDa.

1 Publications Citing This Product

1. PubMed ID: 18350623, Over-expressed and truncated midkines promote proliferation of BGC823 cells in vitro and tumor growth in vivo

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