Anti-Midkine Antibody [JF096-5]

ET1702-64

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human
Applications:	WB, IHC-P, IP
Molecular Wt:	Predicted band size: 16 kDa
Clone number:	JF096-5

Description: Midkine, or MK, is a 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).

Immunogen: Synthetic peptide within Human Midkine aa 100-143 / 143.

Positive control: HepG2 cell lysate, SH-SY5Y cell lysate, U-2 OS cell lysate, human liver tissue, human pancreas tissue.

Subcellular location: Secreted.

Database links: SwissProt: P21741 Human

Recommended Dilutions:

WB	1:1,000
IHC-P	1:1,000

Storage Buffer: 1*TBS (pH7.4), 0.05% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Shipped at 4℃. Store at +4℃ short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20℃ long term.

Purity: Protein A affinity purified.

Images

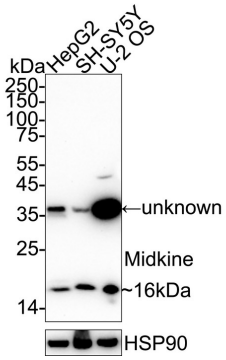

Fig1: Western blot analysis of Midkine on different lysates with Rabbit anti-Midkine antibody (ET1702-64) at 1/1,000 dilution.

Lane 1: HepG2 cell lysate
Lane 2: SH-SY5Y cell lysate
Lane 3: U-2 OS cell lysate

Lysates/proteins at 20 µg/Lane.

Predicted band size: 16 kDa
Observed band size: 16 kDa

Exposure time: 3 minutes; ECL: K1801;
4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (ET1702-64) at 1/1,000 dilution was used in 5% NFDM/TBST at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

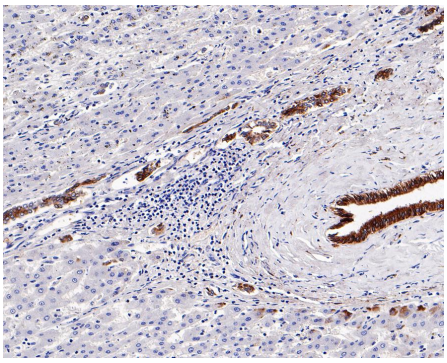

Fig2: Immunohistochemical analysis of paraffin-embedded human liver tissue with Rabbit anti-Midkine antibody (ET1702-64) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (ET1702-64) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

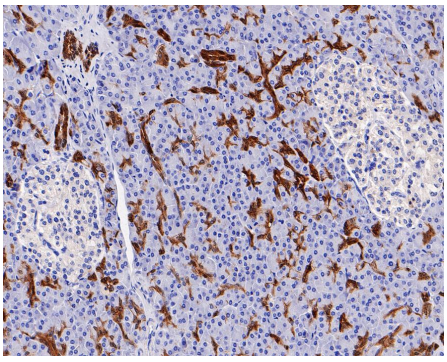

Fig3: Immunohistochemical analysis of paraffin-embedded human pancreas tissue with Rabbit anti-Midkine antibody (ET1702-64) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (ET1702-64) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

Background References

1. Yamashita T et al. Serum midkine as a biomarker for malignancy, prognosis, and chemosensitivity in head and neck squamous cell carcinoma. Cancer Med 5:415-25 (2016).
2. Yuan K et al. MDK Protein Overexpression Correlates with the Malignant Status and Prognosis of Non-small Cell Lung Cancer. Arch Med Res 46:635-41 (2015).