

HDGF (E-7): sc-271344

BACKGROUND

Hepatoma derived growth factor (HDGF) is the original member of a family of polypeptides designated HDGF-related proteins (HRPs). HDGF was initially characterized as a secreted mitogen from the Huh-7 human hepatoma cell line. This nuclear-targeted vascular smooth muscle cell mitogen (VSM) is a heparin-binding protein that is highly expressed in tumor cells where it stimulates proliferation. HDGF is also reported to be involved in organ development and lung remodeling after injury by promoting proliferation of lung epithelial cells. During development, HDGF expression is high in the nucleus and cytoplasm of smooth muscle and endothelial cells. Expression declines after birth but increases during vascular injury.

CHROMOSOMAL LOCATION

Genetic locus: HDGF (human) mapping to 1q23.1; Hdgf (mouse) mapping to 3 F1.

SOURCE

HDGF (E-7) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 209-240 at the C-terminus of HDGF of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

HDGF (E-7) is available conjugated to agarose (sc-271344 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-271344 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-271344 PE), fluorescein (sc-271344 FITC), Alexa Fluor® 488 (sc-271344 AF488), Alexa Fluor® 546 (sc-271344 AF546), Alexa Fluor® 594 (sc-271344 AF594) or Alexa Fluor® 647 (sc-271344 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-271344 AF680) or Alexa Fluor® 790 (sc-271344 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-271344 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

HDGF (E-7) is recommended for detection of HDGF of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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), immunohistochemistry (including paraffin-embedded sections) (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 HDGF siRNA (h): sc-45878, HDGF siRNA (m): sc-45879, HDGF shRNA Plasmid (h): sc-45878-SH, HDGF shRNA Plasmid (m): sc-45879-SH, HDGF shRNA (h) Lentiviral Particles: sc-45878-V and HDGF shRNA (m) Lentiviral Particles: sc-45879-V.

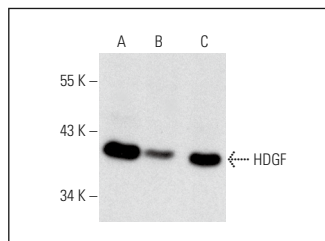
Molecular Weight of HDGF: 40 kDa.

Positive Controls: ECV304 cell lysate: sc-2269, MCF7 whole cell lysate: sc-2206 or Hep G2 cell lysate: sc-2227.

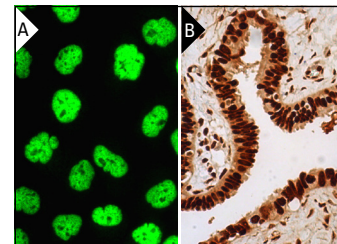
STORAGE

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

DATA



HDGF (E-7): sc-271344. Western blot analysis of HDGF expression in MCF7 (A), ECV304 (B) and Hep G2 (C) whole cell lysates.



HDGF (E-7): sc-271344. Immunofluorescence staining of formalin-fixed A-431 cells showing nuclear localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human fallopian tube tissue showing nuclear and cytoplasmic staining of glandular cells (B).

SELECT PRODUCT CITATIONS

- Giri, K., et al. 2016. Hepatoma derived growth factor (HDGF) dynamics in ovarian cancer cells. *Apoptosis* 21: 329-339.
- Wu, D., et al. 2016. MicroRNA-497 targets hepatoma-derived growth factor and suppresses human prostate cancer cell motility. *Mol. Med. Rep.* 13: 2287-2292.
- Song, R., et al. 2017. MicroRNA-195 inhibits the behavior of cervical cancer tumors by directly targeting HDGF. *Oncol. Lett.* 14: 767-775.
- Liu, J., et al. 2017. MicroRNA-139 suppressed tumor cell proliferation, migration and invasion by directly targeting HDGF in epithelial ovarian cancer. *Mol. Med. Rep.* 16: 3379-3386.
- He, S., et al. 2018. MicroRNA-511 inhibits cellular proliferation and invasion in colorectal cancer by directly targeting hepatoma-derived growth factor. *Oncol. Res.* 26: 1355-1363.
- Wang, Q. and Zhu, W. 2019. MicroRNA-873 inhibits the proliferation and invasion of endometrial cancer cells by directly targeting hepatoma-derived growth factor. *Exp. Ther. Med.* 18: 1291-1298.
- Liu, Z., et al. 2019. Long noncoding RNA LINC00342 promotes growth of infantile hemangioma by sponging miR-3619-5p from HDGF. *Am. J. Physiol. Heart Circ. Physiol.* 317: H830-H839.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

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