

HGF α (H-10): sc-374422

BACKGROUND

Hepatocyte growth factor, or HGF, is a pleiotropic growth factor variously designated as scatter factor, hematopoietin A and mammary growth factor. HGF is synthesized as a single chain, 728 amino acid precursor with a 29 amino acid signal peptide which is not present in the mature protein. Biologically active HGF is composed of a disulfide linked α chain and a β chain, both of which are highly glycosylated. HGF exerts its biological effects through the HGF receptor, c-Met, which is expressed by normal hepatocytes, gastric and intestinal epithelium, ovarian and endometrial endothelium, and in the basal layers of skin. While c-Met is not thought to be expressed in normal lung, thyroid or pancreatic tissue, c-Met has been detected in tumors originating from such tissue. The c-Met proto-oncogene encodes a 1,408 amino acid glycoprotein that represents the prototypic member of a novel family of receptor tyrosine kinases (RTKs) that include Ron, SEA and Sex.

REFERENCE

1. Miyazawa, K., et al. 1994. Proteolytic activation of hepatocyte growth factor in response to tissue injury. *J. Biol. Chem.* 269: 8966-8970.
2. Niranjana, B., et al. 1995. HGF/SF: a potent cytokine for mammary growth, morphogenesis and development. *Development* 121: 2897-2908.

CHROMOSOMAL LOCATION

Genetic locus: HGF (human) mapping to 7q21.11; Hgf (mouse) mapping to 5 A2.

SOURCE

HGF α (H-10) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 3-27 at the N-terminus of HGF α of human origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

HGF α (H-10) is available conjugated to agarose (sc-374422 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-374422 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-374422 PE), fluorescein (sc-374422 FITC), Alexa Fluor[®] 488 (sc-374422 AF488), Alexa Fluor[®] 546 (sc-374422 AF546), Alexa Fluor[®] 594 (sc-374422 AF594) or Alexa Fluor[®] 647 (sc-374422 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-374422 AF680) or Alexa Fluor[®] 790 (sc-374422 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-374422 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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STORAGE

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

APPLICATIONS

HGF α (H-10) is recommended for detection of HGF α of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

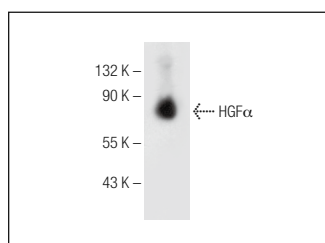
HGF α (H-10) is also recommended for detection of HGF α in additional species, including equine, canine and porcine.

Suitable for use as control antibody for HGF α / β siRNA (h): sc-37111, HGF α / β siRNA (m): sc-37112, HGF α / β siRNA (r): sc-77324, HGF α / β shRNA Plasmid (h): sc-37111-SH, HGF α / β shRNA Plasmid (m): sc-37112-SH, HGF α / β shRNA Plasmid (r): sc-77324-SH, HGF α / β shRNA (h) Lentiviral Particles: sc-37111-V, HGF α / β shRNA (m) Lentiviral Particles: sc-37112-V and HGF α / β shRNA (r) Lentiviral Particles: sc-77324-V.

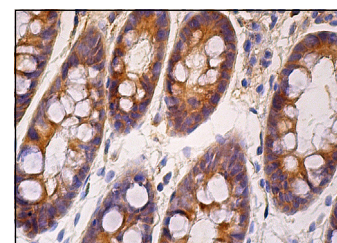
Molecular Weight of HGF α : 69 kDa.

Positive Controls: c4 whole cell lysate: sc-364186.

DATA



HGF α (H-10): sc-374422. Western blot analysis of human recombinant HGF α .



HGF α (H-10): sc-374422. Immunoperoxidase staining of formalin fixed, paraffin-embedded human rectum tissue showing cytoplasmic staining of glandular cells.

SELECT PRODUCT CITATIONS

1. Mariani, M., et al. 2014. HGF/c-Met axis drives cancer aggressiveness in the neo-adjuvant setting of ovarian cancer. *Oncotarget* 5: 4855-4867.
2. Duan, L., et al. 2020. Late protective effect of Netrin-1 in the murine acetaminophen hepatotoxicity model. *Toxicol. Sci.* 175: 168-181.
3. Elgaabari, A., et al. 2022. A pilot study on nitration/dysfunction of NK1 segment of myogenic stem cell activator HGF. *Biochem. Biophys. Rep.* 31: 101295.
4. Bao, R., et al. 2023. AAV9-HGF cooperating with TGF- β /Smad inhibitor attenuates silicosis fibrosis via inhibiting ferroptosis. *Biomed. Pharmacother.* 161: 114537.
5. Montori-Grau, M., et al. 2025. Palmitate potentiates the SMAD3-PAI-1 pathway by reducing nuclear GDF15 levels. *Cell. Mol. Life Sci.* 82: 43.

RESEARCH USE

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