SANTA CRUZ BIOTECHNOLOGY, INC.

HGFA-L (N-19): sc-1371

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Hepatocyte growth factor (HGF) is a pleiotropic growth factor variously designated 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 in ovary and endometrial endothelium and in the basal layers of skin. Hepatocyte growth factor activator (HGFA) is a serine protease which functions to cleave single chain HGF to its active heterodimeric form. HGFA is specific to the liver. HGFA of human origin is synthesized as an inactive secreted 655 amino acid precursor which is activated to generate a heterodimer consisting of a 35 amino acid short chain and a 248 amino acid long chain linked together by a disulfide bond. The gene encoding HGFA maps to human chromosome 4p16.3.

CHROMOSOMAL LOCATION

Genetic locus: HGFAC (human) mapping to 4p16.3; Hgfac (mouse) mapping to 5 B2.

SOURCE

HGFA-L (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of HGFA-L of human 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-1371 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

HGFA-L (N-19) is recommended for detection of HGFA long chain of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

HGFA-L (N-19) is also recommended for detection of HGFA long chain in additional species, including canine, bovine, porcine and avian.

Suitable for use as control antibody for HGFA siRNA (h): sc-39568, HGFA siRNA (m): sc-39569, HGFA shRNA Plasmid (h): sc-39568-SH, HGFA shRNA Plasmid (m): sc-39569-SH, HGFA shRNA (h) Lentiviral Particles: sc-39568-V and HGFA shRNA (m) Lentiviral Particles: sc-39569-V.

Molecular Weight of HGFA precursor: 82 kDa.

Molecular Weight of HGFA-L: 31 kDa.

Molecular Weight of HGFA-S: 5 kDa.

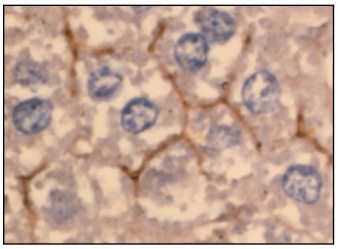
RESEARCH USE

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

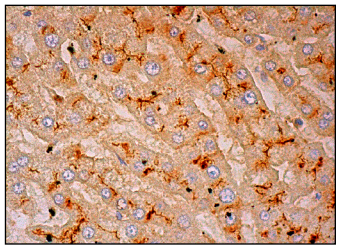
STORAGE

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

DATA



HGFA-L (N-19): sc-1371. Immunoperoxidase staining of formalin fixed, paraffin-embedded mouse liver tissue showing cell surface localization.



HGFA-L (N-19): sc-1371. Immunoperoxidase staining of formalin fixed, paraffin-embedded human liver tissue showing extracellular and cytoplasmic staining of hepatocytes.

SELECT PRODUCT CITATIONS

1. van Adelsberg, J., et al. 2001. Activation of hepatocyte growth factor (HGF) by endogenous HGF activator is required for metanephric kidney morphogenesis *in vitro*. J. Biol. Chem. 276: 15099-15106.
2. Iida, I., et al. 2003. Immunohistochemical localization of hepatocyte growth factor activator (HGFA) in developing mouse liver tissues: heterogeneous distribution of HGFA protein. J. Histochem. Cytochem. 51: 1139-1149.
3. Jiang, W.G., et al. 2004. Prognostic value of Rho GTPases and Rho guanine nucleotide dissociation inhibitors in human breast cancers. Clin. Cancer Res. 9: 6432-6440.
4. Uzumcu, M., et al. 2006. Immunolocalization of the hepatocyte growth factor (HGF) system in the rat ovary and the anti-apoptotic effect of HGF in rat ovarian granulosa cells *in vitro*. Reproduction 132: 291-299.
5. Conway, K., et al. 2007. Hepatocyte growth factor regulation: an integral part of why wounds become chronic. Wound Repair Regen. 15: 683-692.
6. Zhang, X. 2010. Hepatocyte growth factor system in the mouse uterus: variation across the estrous cycle and regulation by 17-β-estradiol and progesterone. Biol. Reprod. 82: 1037-1048.

PROTOCOLS

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