SANTA CRUZ BIOTECHNOLOGY, INC.

HGFα (N-17): sc-1357

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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.

CHROMOSOMAL LOCATION

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

SOURCE

HGFα (N-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of HGFα 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-1357 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

HGFα (N-17) is recommended for detection of HGFα of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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).

HGFα (N-17) is also recommended for detection of HGFα in additional species, including equine, canine, bovine and porcine.

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

Molecular Weight of HGFα: 69 kDa.

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

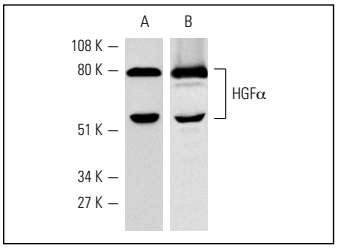
STORAGE

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

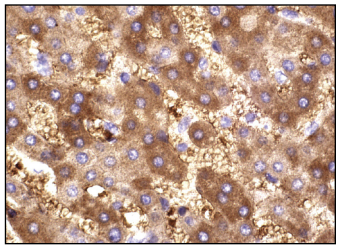
RESEARCH USE

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

DATA



Western blot analysis of human recombinant HGFα (**A**,**B**). Antibodies tested include HGFα (C-20): sc-1358 (**A**) and HGFα (N-17): sc-1357 (**B**).



HGFα (N-17): sc-1357. Immunoperoxidase staining of formalin fixed, paraffin-embedded human liver tissue showing cytoplasmic staining of hepatocytes.

SELECT PRODUCT CITATIONS

1. Ljubimova, J.Y., et al. 1997. Expression of HGF, its receptor c-met, c-myc, and albumin in cirrhotic and neoplastic human liver tissue. J. Histochem. Cytochem. 45: 79-87.
2. Ku, J.H., et al. 2006. *In vivo* hepatocyte growth factor gene transfer to bladder smooth muscle after bladder outlet obstruction in the rat: a morphometric analysis. J. Urol. 176: 1230-1235.
3. Du, W., et al. 2007. NK4, an antagonist of hepatocyte growth factor (HGF), inhibits growth of multiple myeloma cells: molecular targeting of angiogenic growth factor. Blood 109: 3042-3049.
4. Nayeri, F., et al. 2008. Clinical impact of real-time evaluation of the biological activity and degradation of hepatocyte growth factor. Growth Factors 26: 163-171.
5. Shanmukhappa, K., et al. 2009. Plasmin-mediated proteolysis is required for hepatocyte growth factor activation during liver repair. J. Biol. Chem. 284: 12917-12923.
6. Calveley, V.L., et al. 2010. Genistein can mitigate the effect of radiation on rat lung tissue. Radiat. Res. 173: 602-611.
7. Gaddy, D.F., et al. 2010. *In vivo* expression of HGF/NK1 and GLP-1 from dsAAV vectors enhances pancreatic β-cell proliferation and improves pathology in the db/db mouse model of diabetes. Diabetes 59: 3108-3116.
8. Mahmood, J., et al. 2011. Mitigation of radiation-induced lung injury by genistein and EUK-207. Int. J. Radiat. Biol. 87: 889-901.
9. Hung, T.H., et al. 2014. FZD1 activates protein kinase C δ-mediated drug-resistance in multidrug-resistant MES-SA/Dx5 cancer cells. Int. J. Biochem. Cell Biol. 53: 55-65.

MONOS Satisfaction Guaranteed

Try **HGFα (H-10): sc-374422** or **HGFα (B-3): sc-166724**, our highly recommended monoclonal alternatives to HGFα (N-17). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **HGFα (H-10): sc-374422**.