SANTA CRUZ BIOTECHNOLOGY, INC.

HGFβ (S-16): sc-34462

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.

REFERENCES

1. Miyazawa, K., et al. 1994. Proteolytic activation of hepatocyte growth factor in response to tissue injury. J. Biol. Chem. 269: 8966-8970.
2. Niranjan, B., et al. 1995. HGF/SF: a potent cytokine for mammary growth, morphogenesis and development. Development 121: 2897-2908.
3. Naldini, L., et al. 1995. Biological activation of pro-HGF (hepatocyte growth factor) by urokinase is controlled by a stoichiometric reaction. J. Biol. Chem. 270: 603-611.
4. Ferracini, R., et al. 1995. The Met/HGF receptor is over-expressed in human osteosarcomas and is activated by either a paracrine or an autocrine circuit. Oncogene 10: 739-749.
5. Tuck, A.B., et al. 1996. Coexpression of hepatocyte growth factor and receptor (Met) in human breast carcinoma. Am. J. Pathol. 148: 225-232.
6. Huff, J.L., et al. 1996. Expression and maturation of the cellular SEA receptor, a member of the hepatocyte growth factor (HGF) receptor family of protein tyrosine kinases. Oncogene 12: 299-307.
7. Maestrini, E., et al. 1996. A family of transmembrane proteins with homology to the MET-hepatocyte growth factor receptor. Proc. Natl. Acad. Sci. USA 93: 674-678.

CHROMOSOMAL LOCATION

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

SOURCE

HGFβ (S-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of HGFβ 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-34462 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

HGFβ (S-16) is recommended for detection of HGFβ 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).

HGFβ (S-16) is also recommended for detection of HGFβ in additional species, including equine, canine, bovine, porcine and avian.

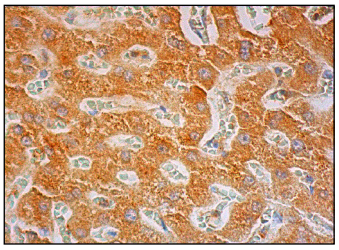
Suitable for use as control antibody for HGFα/β siRNA (h): sc-37111, HGFα/β siRNA (m): sc-37112, HGFα/β shRNA Plasmid (h): sc-37111-SH, HGFα/β shRNA Plasmid (m): sc-37112-SH, HGFα/β shRNA (h) Lentiviral Particles: sc-37111-V and HGFα/β shRNA (m) Lentiviral Particles: sc-37112-V.

Molecular Weight of HGFβ precursor: 91 kDa.

Molecular Weight of HGF α chain: 64 kDa.

Molecular Weight of HGF β chain: 34 kDa.

DATA



HGFβ (S-16): sc-34462. Immunoperoxidase staining of formalin fixed, paraffin-embedded human liver tissue showing cytoplasmic staining of hepatocytes.

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.

PROTOCOLS

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