SANTA CRUZ BIOTECHNOLOGY, INC.

HGFβ (N-19): sc-1356

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

HGFβ (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus 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-1356 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

HGFβ (N-19) 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 (N-19) is also recommended for detection of HGFβ 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 HGFβ precursor: 91 kDa.

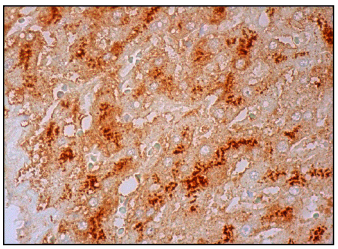
Molecular Weight of HGFβ α chain: 64 kDa.

Molecular Weight of HGFβ β chain: 34 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



HGFβ (N-19): sc-1356. Immunoperoxidase staining of formalin fixed, paraffin-embedded human liver tissue showing cytoplasmic staining of hepatocytes.

SELECT PRODUCT CITATIONS

1. Lai, L., et al. 2001. Cutting edge: Identification of a hybrid cytokine consisting of IL-7 and the β-chain of the hepatocyte growth factor/scatter factor. J. Immunol. 167: 3550-3554.
2. 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.
3. Trapp, T., et al. 2008. Hepatocyte growth factor/c-MET axis-mediated tropism of cord blood-derived unrestricted somatic stem cells for neuronal injury. J. Biol. Chem. 283: 32244-32253.

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.