

# HGF $\beta$ (D-19): sc-34461

## 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  $\alpha$  chain and a  $\beta$  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. Niranjana, 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.

## CHROMOSOMAL LOCATION

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

## SOURCE

HGF $\beta$  (D-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of HGF $\beta$  of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-34461 P, (100  $\mu$ g 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.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

## APPLICATIONS

HGF $\beta$  (D-19) is recommended for detection of HGF $\beta$  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).

HGF $\beta$  (D-19) is also recommended for detection of HGF $\beta$  in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for HGF $\alpha$ / $\beta$  siRNA (h): sc-37111, HGF $\alpha$ / $\beta$  siRNA (m): sc-37112, HGF $\alpha$ / $\beta$  shRNA Plasmid (h): sc-37111-SH, HGF $\alpha$ / $\beta$  shRNA Plasmid (m): sc-37112-SH, HGF $\alpha$ / $\beta$  shRNA (h) Lentiviral Particles: sc-37111-V and HGF $\alpha$ / $\beta$  shRNA (m) Lentiviral Particles: sc-37112-V.

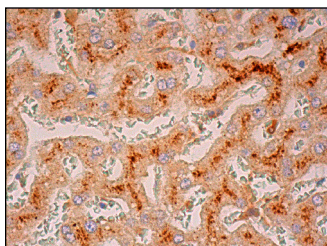
Molecular Weight of HGF $\beta$  precursor: 91 kDa.

Molecular Weight of HGF  $\alpha$  chain: 64 kDa.

Molecular Weight of HGF  $\beta$  chain: 34 kDa.

Positive Controls: ECV304 cell lysate: sc-2269.

## DATA



HGF $\beta$  (D-19): sc-34461. Immunoperoxidase staining of formalin fixed, paraffin-embedded human liver tissue showing cytoplasmic staining of hepatocytes.

## SELECT PRODUCT CITATIONS

1. 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.

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Try **HGF $\beta$  (EGH2): sc-53478**, our highly recommended monoclonal alternatives to HGF $\beta$  (D-19).