HGFβ (EGH2 4C12.1): sc-53478



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 69 kDa α chain and a 34 kDa 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 1408 amino acid glycoprotein that represents the prototypic member of a novel family of receptor tyrosine kinases (RTKs) that include Ron, Sea and Sex.

REFERENCES

- Miyazawa, K., Shimomura, T., Naka, D. and Kitamura, N. 1994. Proteolytic activation of hepatocyte growth factor in response to tissue injury. J. Biol. Chem. 269: 8966-8970.
- Niranjan, B., Buluwela, L., Yant, J., Perusinghe, N., Atherton, A., Phippard, D., Dale, T., Gusterson, B. and Kamalati, T. 1995. HGF/SF: a potent cytokine for mammary growth, morphogenesis and development. Development 121: 2897-2908.
- 3. Naldini, L., Vigna, E., Bardelli, A., Follenzi, A., Galimi, F. and Comoglio, P.M. 1995. Biological activation of pro-HGF (hepatocyte growth factor) by urokinase is controlled by a stoichiometric reaction. J. Biol. Chem. 270: 603-611.
- Ferracini, R., Di Renzo, M.F., Scotlandi, K., Baldini, N., Olivero, M., Lollini, P.L., Cremona, O., Campanacci, M. and Comoglio, P.M. 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.
- Tuck, A.B., Park, M., Sterns, E.E., Boag, A. and Elliott, B.E. 1996.
 Coexpression of hepatocyte growth factor and receptor (Met) in human breast carcinoma. Am. J. Pathol. 148: 225-232.
- Huff, J.L., Jelinek, M.A., Jamieson, T.A. and Parsons, J.T. 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.
- Maestrini, E., Tamagnone, L., Longati, P., Cremona, O., Gulisano, M., Bione, S., Tamanini, F., Neel, B.G., Toniolo, D. and Comoglio, P.M. 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.

SOURCE

 $\mathsf{HGF}\beta$ (EGH2 4C12.1) is a mouse monoclonal antibody raised against recombinant human HGF/SF .

PRODUCT

Each vial contains 200 $\mu g \; lg G_{2h}$ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

HGFβ (EGH2) is recommended for detection of HGFβ of human origin by solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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

Molecular Weight of HGF precursor: 91 kDa.

Molecular Weight of HGF lpha chain: 64 kDa.

Molecular Weight of HGF β chain: 34 kDa.

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 for detailed protocols and support products.

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3800 fax 831.457.3801 **Europe** +00800 4573 8000 49 6221 4503 0 **www.scbt.com**