# HGFα (32-176): sc-4462 WB



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  $\alpha$  chain and a 34 kDa  $\beta$  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 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.
- 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.
- 4. Ferracini, R., Di Renzo, M.F., Scotlandi, K., Baldini, N., Olivero, M., Lollini, P., 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.

### **SOURCE**

 $\mathsf{HGF}\alpha$  (32-176) is expressed in *E. coli* as a 43 kDa tagged fusion protein corresponding to amino acids 32-176 of  $\mathsf{HGF}\alpha$  of human origin.

### **STORAGE**

Store at -20° C; stable for one year from the date of shipment.

#### **PRODUCT**

HGF $\alpha$  (32-176) is purified from bacterial lysates (>98%) by glutathione agarose affinity chromatography; supplied as 10  $\mu$ g in 0.1 ml SDS-PAGE loading buffer.

### **APPLICATIONS**

 $\mathsf{HGF}\alpha$  (32-176) is suitable as a Western blotting control for sc-7949.

### **RESEARCH USE**

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

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