SANTA CRUZ BIOTECHNOLOGY, INC.

p-Met (Tyr 1234): sc-101736

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The c-Met oncogene was originally isolated from a chemical carcinogen-treated human osteogenic sarcoma cell line by transfection analysis in NIH/3T3 cells. The Met proto-oncogene product was identified as a transmembrane receptor-like protein with tyrosine kinase activity that is expressed in many tissues. A high proportion of spontaneous NIH/3T3 transformants overexpress c-Met and by transfection analysis the c-Met proto-oncogene has been shown to exhibit transforming activity. Tyrosine phosphorylation of apparently normal Met protein has also been observed in certain human gastric carcinoma cell lines. Tyrosine phosphorylation enhances the receptor kinase activity, while serine phosphorylation of Met on residue 985 has an inhibitory effect. The c-Met gene product has been identified as the cell surface receptor for hepatocyte growth factor, a plasminogen-like protein thought to be a humoral mediator of liver regeneration.

REFERENCES

1. Cooper, C.S., et al. 1984. Molecular cloning of a new transforming gene from a chemically transformed human cell line. Nature 311: 29-33.
2. Park, M., et al. 1986. Mechanism of Met oncogene activation. Cell 45: 895-904.
3. Cooper, C.S., et al. 1986. Amplification and overexpression of the Met gene in spontaneously transformed NIH/3T3 mouse fibroblasts. EMBO J. 5: 2623-2628.
4. Chan, A.M.L., et al. 1988. Characterization of the mouse Met proto-oncogene. Oncogene 2: 593-599.
5. Giordano, S., et al. 1988. p145, a protein with associated tyrosine kinase activity in a human gastric carcinoma cell line. Mol. Cell. Biol. 8: 3510-3517.
6. Bottaro, D.P., et al. 1991. Identification of the hepatocyte growth factor receptor as the c-Met proto-oncogene product. Science 251: 802-904.

CHROMOSOMAL LOCATION

Genetic locus: MET (human) mapping to 7q31.2; Met (mouse) mapping to 6 A2.

SOURCE

p-Met (Tyr 1234) is a rabbit polyclonal antibody raised against a short amino acid sequence containing Tyr 1234 phosphorylated Met of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

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.

APPLICATIONS

p-Met (Tyr 1234) is recommended for detection of Tyr 1234 phosphorylated Met of human origin; correspondingly phosphorylated Tyr 1232 of mouse origin and correspondingly phosphorylated Tyr 1235 of rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)].

Suitable for use as control antibody for Met siRNA (h): sc-29397, Met siRNA (m): sc-35924, Met shRNA Plasmid (h): sc-29397-SH, Met shRNA Plasmid (m): sc-35924-SH, Met shRNA (h) Lentiviral Particles: sc-29397-V and Met shRNA (m) Lentiviral Particles: sc-35924-V.

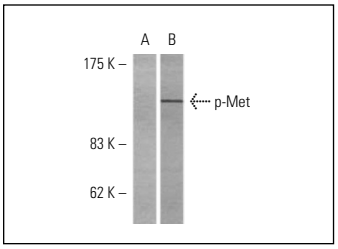
Molecular Weight of p-Met: 131 kDa.

Positive Controls: Hep G2 whole cell lysate: sc-2227 or A-431 + EGF whole cell lysate: sc-2202

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto B Blocking Reagent: sc-2335 (use 50 mM NaF, sc-24988, as diluent), Western Blotting Luminol Reagent: sc-2048 and Lambda Phosphatase: sc-200312A. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



Western blot analysis of phosphorylated Met expression in Hep G2 whole cell lysate (**A**,**B**). Blots were probed with p-Met (Tyr 1234): sc-101736 preincubated with its cognate phosphorylated peptide (**A**) and p-Met (Tyr 1234): sc-101736 (**B**).

SELECT PRODUCT CITATIONS

1. Yamamoto, K., et al. 2011. Effect of globin digest on the liver injury and hepatic gene expression profile in galactosamine-induced liver injury in SD rats. Life Sci. 88: 701-712.
2. Yeh, C.Y., et al. 2011. Transcriptional activation of the Axl and PDGFR-α by c-Met through a ras- and Src-independent mechanism in human bladder cancer. BMC Cancer 11: 139.
3. Vasuri, F., et al. 2014. Biochemical and immunomorphological evaluation of hepatocyte growth factor and c-Met pathway in patients with critical limb ischemia. Eur. J. Vasc. Endovasc. Surg. E-published.