SANTA CRUZ BIOTECHNOLOGY, INC.

Met (D-4): sc-514148

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. 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 NIH3T3 mouse fibroblasts. EMBO J. 5: 2623-2628.

CHROMOSOMAL LOCATION

Genetic locus: MET (human) mapping to 7q31.2.

SOURCE

Met (D-4) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 1375-1391 within a C-terminal cytoplasmic domain of Met of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Met (D-4) is available conjugated to agarose (sc-514148 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514148 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514148 PE), fluorescein (sc-514148 FITC), Alexa Fluor® 488 (sc-514148 AF488), Alexa Fluor® 546 (sc-514148 AF546), Alexa Fluor® 594 (sc-514148 AF594) or Alexa Fluor® 647 (sc-514148 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514148 AF680) or Alexa Fluor® 790 (sc-514148 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-514148 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

RESEARCH USE

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

APPLICATIONS

Met (D-4) is recommended for detection of Met of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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).

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

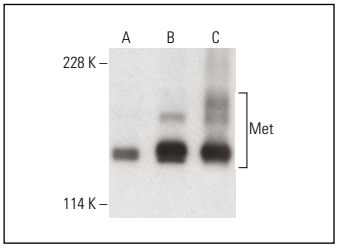
Molecular Weight of Met precursor: 170 kDa.

Molecular Weight of Met α subunit: 50 kDa.

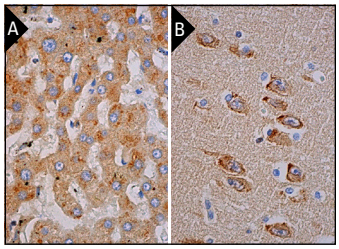
Molecular Weight of Met β subunit: 145 kDa.

Positive Controls: HEK293 whole cell lysate: sc-45136, A549 cell lysate: sc-2413 or PC-3 cell lysate: sc-2220.

DATA



Met (D-4) HRP: sc-514148 HRP. Direct western blot analysis of Met expression in HEK293 (**A**), A549 (**B**) and PC-3 (**C**) whole cell lysates.



Met (D-4): sc-514148. Immunoperoxidase staining of formalin fixed, paraffin-embedded human liver tissue showing cytoplasmic staining of hepatocytes (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human cerebral cortex tissue showing cytoplasmic staining of neuronal cells (**B**).

SELECT PRODUCT CITATIONS

1. Deying, W., et al. 2017. CAF-derived HGF promotes cell proliferation and drug resistance by up-regulating the c-Met/PI3K/Akt and GRP78 signalling in ovarian cancer cells. Biosci. Rep. 37: BSR20160470.
2. Mambetsariev, I., et al. 2019. Small cell lung cancer therapeutic responses through fractal measurements: from radiology to mitochondrial biology. J. Clin. Med. 8: 1038.
3. Mondelo-Macía, P., et al. 2020. Detection of Met alterations using cell free DNA and circulating tumor cells from cancer patients. Cells 9: 522.
4. Zhu, Y., et al. 2021. Stat3 mediated upregulation of c-Met signaling acts as a compensatory survival mechanism upon EGFR family inhibition in chemoresistant breast cancer cells. Cancer Lett. 519: 328-342.

STORAGE

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