SANTA CRUZ BIOTECHNOLOGY, INC.

Met (B-2): sc-8057

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 trans-membrane 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.

CHROMOSOMAL LOCATION

Genetic locus: Met (mouse) mapping to 6 A2.

SOURCE

Met (B-2) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 1350-1379 at the C-terminus of c-Met p140 of mouse 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 (B-2) is available conjugated to agarose (sc-8057 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-8057 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-8057 PE), fluorescein (sc-8057 FITC), Alexa Fluor® 488 (sc-8057 AF488), Alexa Fluor® 546 (sc-8057 AF546), Alexa Fluor® 594 (sc-8057 AF594) or Alexa Fluor® 647 (sc-8057 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-8057 AF680) or Alexa Fluor® 790 (sc-8057 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-8057 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

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

APPLICATIONS

Met (B-2) is recommended for detection of Met of mouse and rat origin by Western Blotting (starting dilution 1:200, 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 (m): sc-35924, Met shRNA Plasmid (m): sc-35924-SH and Met shRNA (m) Lentiviral Particles: sc-35924-V.

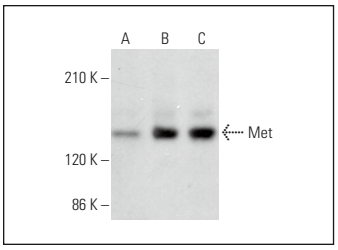
Molecular Weight of Met precursor: 170 kDa.

Molecular Weight of Met α subunit: 50 kDa.

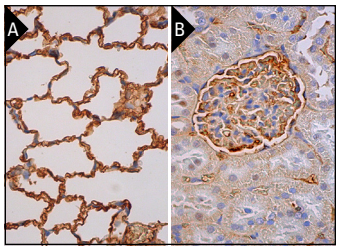
Molecular Weight of Met β subunit: 145 kDa.

Positive Controls: C6 whole cell lysate: sc-364373, TK-1 whole cell lysate: sc-364798 or WEHI-231 whole cell lysate: sc-2213.

DATA



Met (B-2): sc-8057. Western blot analysis of Met expression in C6 (**A**), TK-1 (**B**) and WEHI-231 (**C**) whole cell lysates.



Met (B-2): sc-8057. Immunoperoxidase staining of formalin fixed, paraffin-embedded rat lung tissue showing cytoplasmic staining of pneumocytes and macrophages and membrane and cytoplasmic staining of endothelial cells (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded rat kidney tissue showing membrane and cytoplasmic staining of cells in glomeruli and endothelial cells (**B**).

SELECT PRODUCT CITATIONS

1. Manganini, M., et al. 2000. Transforming growth factor β2 inhibition of hepatocyte growth factor-induced endothelial proliferation and migration. Oncogene 19: 124-133.
2. Li, P., et al. 2019. Low-intensity ultrasound enhances the chemosensitivity of hepatocellular carcinoma cells to cisplatin via altering the miR-34a/c-Met axis. Int. J. Mol. Med. 44: 135-144.
3. Hervieu, A., et al. 2020. A PI3K- and GTPase-independent Rac1-mTOR mechanism mediates Met-driven anchorage-independent cell growth but not migration. Sci. Signal. 13: eaba8627.
4. Lopusna, K., et al. 2021. Dnmt3b catalytic activity is critical for its tumour suppressor function in lymphomagenesis and is associated with c-Met oncogenic signalling. EBioMedicine 63: 103191.

RESEARCH USE

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