SANTA CRUZ BIOTECHNOLOGY, INC.

p-Met (F-5): sc-377548

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.

CHROMOSOMAL LOCATION

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

SOURCE

p-Met (F-5) is a mouse monoclonal antibody raised against a short amino acid sequence containing Tyr 1365 phosphorylated Met of human origin.

PRODUCT

Each vial contains 200 µg IgG_3 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-377548 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

p-Met (F-5) is recommended for detection of Tyr 1365 phosphorylated Met of mouse, rat and 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).

p-Met (F-5) is also recommended for detection of correspondingly phosphorylated Met in additional species, including equine, canine, bovine, porcine and avian.

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 precursor: 170 kDa.

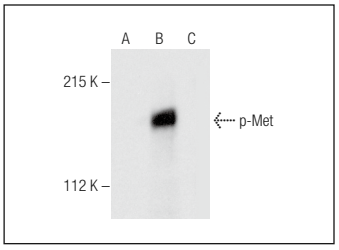
Molecular Weight of p-Met β subunit: 145 kDa.

Molecular Weight of p-Met α subunit: 50 kDa.

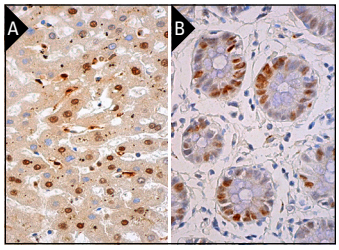
STORAGE

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

DATA



Western blot analysis of Met phosphorylation in untreated (**A**), pervanadate treated (**B**) and pervanadate and lambda protein phosphatase (sc-200312A) treated (**C**) A-431 whole cell lysates. Antibody tested include p-Met (F-5): sc-377548 (**A**,**B**,**C**).



p-Met (F-5): sc-377548. Immunoperoxidase staining of formalin fixed, paraffin-embedded human liver tissue showing nuclear and faint cytoplasmic staining of hepatocytes (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human rectum tissue showing nuclear staining of glandular cells (**B**).

SELECT PRODUCT CITATIONS

1. Das, A., et al. 2015. Synergistic effects of crizotinib and temozolomide in experimental FIG-ROS1 fusion-positive glioblastoma. Cancer Growth Metastasis 8: 51-60.
2. Huang, X., et al. 2019. The HGF-MET axis coordinates liver cancer metabolism and autophagy for chemotherapeutic resistance. Autophagy 15: 1258-1279.
3. Zhang, T., et al. 2020. TBL1XR1 is involved in c-Met-mediated tumorigenesis of human nonsmall cell lung cancer. Cancer Gene Ther. 27: 136-146.
4. Ding, N., et al. 2020. Chidamide increases the sensitivity of non-small cell lung cancer to crizotinib by decreasing c-MET mRNA methylation. Int. J. Biol. Sci. 16: 2595-2611.
5. Al Shahrani, M., et al. 2021. Computational and *in vitro* characterization of ICY-5: a potential candidate promoting mitochondrial apoptosis via the c-MET and Stat3 pathways. J. Cell. Physiol. 236: 146-156.
6. Li, Y., et al. 2023. HBx downregulated decorin and decorin-derived peptides inhibit the proliferation and tumorigenicity of hepatocellular carcinoma cells. FASEB J. 37: e22871.
7. Proto, M.C., et al. 2023. Rimonabant and cannabidiol rewrite the interactions between breast cancer cells and tumor microenvironment. Int. J. Mol. Sci. 24: 13427.

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.