SANTA CRUZ BIOTECHNOLOGY, INC.

cleaved Met (h308): sc-34407

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Met tyrosine kinase receptor, also designated hepatocyte growth factor receptor (HGFR) or RCCP2, mediates cell responses following cleavage-dependent activation by the ligand HGF/SF. Cleavage occurs at aspartic residue 1000 within the SVD site of the juxtamembrane region. Cleavage generates an intracellular 40 kDa Met fragment containing the kinase domain. The kinase-active p40 Met fragment causes apoptosis of MDCK epithelial cells and embryonic cortical neurons. This truncated Met molecule encompasses the kinase domain of the receptor and is itself tyrosine phosphorylated. Stress stimuli induce caspase-mediated cleavage of Met in physiological cellular targets, such as epithelial cells, embryonic hepatocytes and cortical neurons.

REFERENCES

1. Collesi, C., et al. 1996. A splicing variant of the RON transcript induces constitutive tyrosine kinase activity and an invasive phenotype. Mol. Cell Biol. 16: 5518-5526.
2. Jeffers, M., et al. 1997. Degradation of the Met tyrosine kinase receptor by the ubiquitin-proteasome pathway. Mol. Cell Biol. 17: 799-808.
3. Wallenius, V., et al. 2000. Overexpression of the hepatocyte growth factor (HGF) receptor (Met) and presence of a truncated and activated intracellular HGF receptor fragment in locally aggressive/malignant human musculoskeletal tumors. Am. J. Pathol. 156: 821-829.
4. Nath, D., et al. 2001. Shedding of c-Met is regulated by crosstalk between a G protein-coupled receptor and the EGF receptor and is mediated by a TIMP-3 sensitive metalloproteinase. J. Cell. Sci. 114: 1213-1220.
5. Kataoka, H., et al. 2001. Pericellular activation of hepatocyte growth factor/scatter factor (HGF/SF) in colorectal carcinomas: roles of HGF activator (HGFA) and HGFA inhibitor type 1 (HAI-1). Hum. Cell 14: 83-93.
6. Peek, M., et al. 2002. Unusual proteolytic activation of pro-hepatocyte growth factor by plasma kallikrein and coagulation factor XIa. J. Biol. Chem. 277: 47804-47809.
7. Tulasne, D., et al. 2004. Proapoptotic function of the Met tyrosine kinase receptor through caspase cleavage. Mol. Cell Biol. 24: 10328-10339.

CHROMOSOMAL LOCATION

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

SOURCE

cleaved Met (h308) is a goat polyclonal antibody raised against a short amino acid sequence containing the neoepitope at Ser 308 of Met of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-34407 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

cleaved Met (h308) is recommended for detection of the C-terminal product of extracellular Met cleavage of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500); non cross-reactive with full length Met.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.