

MetAP-2 (D-1): sc-365204

BACKGROUND

Methionine aminopeptidases (MetAP), also designated peptidase M proteins, are members of the M24 family of proteins. Both MetAP-1 and MetAP-2 release N-terminal amino acids, usually methionine, from nascent peptides and arylamines. Eukaryotes contain both MetAP-1 and MetAP-2, whereas prokaryotes possess only the MetAP-1 enzyme. MetAP-1 and MetAP-2 control cell proliferation in mammalian cells. MetAP-2 is highly conserved between human and *Saccharomyces cerevisiae*. Neurofibromin (NF1) regulates MetAP-2 and increased expression of MetAP-2 correlates with several forms of cancer. Inhibitors of MetAP-2 are potential targets in cancer therapeutics, particularly in NF1-associated tumor proliferation. Chemotherapeutic drugs such as ovalicin and fumagillin bind to the active site of and inhibit MetAP-2.

REFERENCES

1. Sin, N., et al. 1997. The aminopeptidase, MetAP-2. Proc. Natl. Acad. Sci. USA 94: 6099-6103.
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3. Zhang, H., et al. 2005. Investigations into microsporidian methionine aminopeptidase type 2: a therapeutic target for microsporidiosis. Folia Parasitol. 52: 182-192.
4. Chun, E., et al. 2005. Novel inhibitors targeted to methionine aminopeptidase 2 (MetAP-2) strongly inhibit the growth of cancers in xenografted nude model. Int. J. Cancer 114: 124-130.
5. Bernier, S.G., et al. 2005. Methionine aminopeptidases type I and type II are essential to control cell proliferation. J. Cell. Biochem. 95: 1191-1203.
6. Kallander, L.S., et al. 2005. 4-Aryl-1,2,3-triazole: a novel template for a reversible methionine aminopeptidase 2 inhibitor, optimized to inhibit angiogenesis *in vivo*. J. Med. Chem. 48: 5644-5647.
7. Online Mendelian Inheritance in Man, OMIM™. 2006. Johns Hopkins University, Baltimore, MD. MIM Number: 601870. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

CHROMOSOMAL LOCATION

Genetic locus: METAP2 (human) mapping to 12q22; Metap2 (mouse) mapping to 10 C2.

SOURCE

MetAP-2 (D-1) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 279-405 near the C-terminus of MetAP-2 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} 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-365204 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

MetAP-2 (D-1) is recommended for detection of MetAP-2 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

MetAP-2 (D-1) is also recommended for detection of MetAP-2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for MetAP-2 siRNA (h): sc-61024, MetAP-2 siRNA (m): sc-61025, MetAP-2 shRNA Plasmid (h): sc-61024-SH, MetAP-2 shRNA Plasmid (m): sc-61025-SH, MetAP-2 shRNA (h) Lentiviral Particles: sc-61024-V and MetAP-2 shRNA (m) Lentiviral Particles: sc-61025-V.

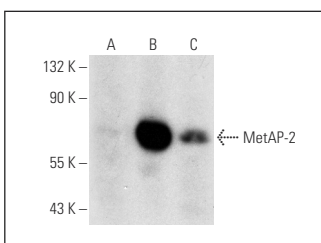
Molecular Weight of MetAP-2: 67 kDa.

Positive Controls: MetAP-2 (h): 293T Lysate: sc-113324, HeLa whole cell lysate: sc-2200 or BW5147 cell lysate: sc-3800.

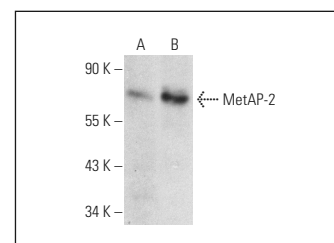
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



MetAP-2 (D-1): sc-365204. Western blot analysis of MetAP-2 expression in non-transfected 293T: sc-117752 (A), human MetAP-2 transfected 293T: sc-113324 (B) and HeLa (C) whole cell lysates.



MetAP-2 (D-1): sc-365204. Western blot analysis of MetAP-2 expression in HeLa (A) and BW5147 (B) whole cell lysates.

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.