

# MetAP-2 (B-8): sc-166827

## 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.
2. 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.
3. 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.
4. 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.
5. Morowitz, M.J., et al. 2005. Methionine aminopeptidase 2 inhibition is an effective treatment strategy for neuroblastoma in preclinical models. *Clin. Cancer Res.* 11: 2680-2685.
6. Zhang, H., et al. 2005. Investigations into microsporidian methionine amino-peptidase type 2: a therapeutic target for microsporidiosis. *Folia Parasitol.* 52: 182-192.
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 (B-8) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 50-80 near the N-terminus of MetAP-2 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>3</sub> 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-166827 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

## APPLICATIONS

MetAP-2 (B-8) 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), 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 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.

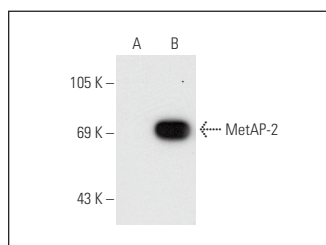
Molecular Weight of MetAP-2: 67 kDa.

Positive Controls: MetAP-2 (h): 293T Lysate: sc-113324, A-431 whole cell lysate: sc-2201 or Caco-2 cell lysate: sc-2262.

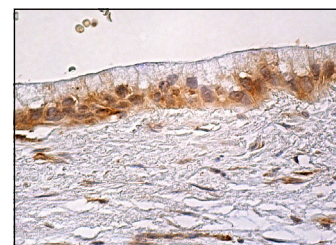
## RECOMMENDED SUPPORT REAGENTS

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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

## DATA



MetAP-2 (B-8): sc-166827. Western blot analysis of MetAP-2 expression in non-transfected: sc-117752 (A) and human MetAP-2 transfected: sc-113324 (B) 293T whole cell lysates.



MetAP-2 (B-8): sc-166827. Immunoperoxidase staining of formalin fixed, paraffin-embedded human gall bladder tissue showing cytoplasmic staining of glandular cells.

## 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.