

MetAP-1 (N-19): sc-49238

BACKGROUND

Methionine aminopeptidases (MetAP), also designated peptidase M proteins, are members of the M24 family of proteins. MetAP proteins remove the amino-terminal methionine residue from nascent polypeptides. MetAP-1 is a 394 amino acid protein that is expressed at low levels in all tissues, but is highly expressed in skeletal muscles. The active site of MetAP-1 contains two adjacent divalent metal ions connected by a water molecule or hydroxide ion. The control of cell proliferation in mammalian cells is directly linked and strictly dependent on the evolutionarily highly conserved mechanism that MetAP-1 employs. Eukaryotes contain both MetAP-1 and MetAP-2, whereas prokaryotes possess only the MetAP-1 enzyme. Pyridine-2-carboxylic acid thiazol-2-ylamide (PCAT) forms a scaffold that inhibits the action of MetAP-1, while 1,2,4-triazol is a non-peptide inhibitor of MetAP-1 binding to the active site with the N1 and N2 atoms of the triazole moiety complexing two divalent ions.

CHROMOSOMAL LOCATION

Genetic locus: METAP1 (human) mapping to 4q23; Metap1 (mouse) mapping to 3 G3.

SOURCE

MetAP-1 (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of MetAP-1 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-49238 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

MetAP-1 (N-19) is recommended for detection of MetAP-1 of mouse, rat and human 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

MetAP-1 (N-19) is also recommended for detection of MetAP-1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for MetAP-1 siRNA (h): sc-61022, MetAP-1 siRNA (m): sc-61023, MetAP-1 shRNA Plasmid (h): sc-61022-SH, MetAP-1 shRNA Plasmid (m): sc-61023-SH, MetAP-1 shRNA (h) Lentiviral Particles: sc-61022-V and MetAP-1 shRNA (m) Lentiviral Particles: sc-61023-V.

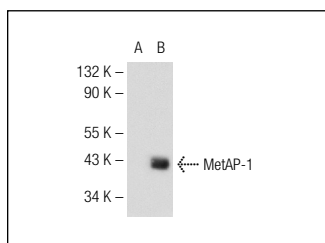
Molecule Weight of MetAP-1: 43 kDa.

Positive Controls: MetAP-1 (m): 293T Lysate: sc-121609.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



MetAP-1 (N-19): sc-49238. Western blot analysis of MetAP-1 expression in non-transfected: sc-117752 (A) and mouse MetAP-1 transfected: sc-121609 (B) 293T 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.

PROTOCOLS

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



Try **MetAP-1 (A-2): sc-514653** or **MetAP-1 (C-12): sc-514521**, our highly recommended monoclonal alternatives to MetAP-1 (N-19).