

# AdoMetDC (D-4): sc-376119

## BACKGROUND

Polyamines are compounds that have two or more primary amino groups and are important to cellular processes, such as cellular growth, proliferation and tumor promotion. AdoMetDC (adenosylmethionine decarboxylase 1), also known as S-adenosylmethionine decarboxylase proenzyme (SAMDC) or AMD1, is a 334 amino acid protein which is an important intermediate enzyme in polyamine biosynthesis pathways. Using a pyruvoyl group as a cofactor, AdoMetDC catalyzes the conversion of S-adenosyl-L-methionine to (5-deoxy-5-adenosyl) (3-aminopropyl)-methylsulfonium salt and carbon dioxide. AdoMetDC is synthesized as an inactive proenzyme that undergoes self-maturation to form two non-identical subunits designated  $\alpha$  and  $\beta$ . Active AdoMetDC forms a heterotetramer of two  $\alpha$  chains and two  $\beta$  chains. Both AdoMetDC proenzyme processing and mature AdoMetDC catalytic activity are stimulated by putrescine, while catalytic activity is inhibited by iodoacetic acid.

## CHROMOSOMAL LOCATION

Genetic locus: AMD1 (human) mapping to 6q21; Amd1 (mouse) mapping to 10 B1.

## SOURCE

AdoMetDC (D-4) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 17-47 near the N-terminus of AdoMetDC of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>1</sub> in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

AdoMetDC (D-4) is recommended for detection of AdoMetDC of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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).

AdoMetDC (D-4) is also recommended for detection of AdoMetDC in additional species, including bovine and porcine.

Suitable for use as control antibody for AdoMetDC siRNA (h): sc-95296, AdoMetDC siRNA (m): sc-140886, AdoMetDC shRNA Plasmid (h): sc-95296-SH, AdoMetDC shRNA Plasmid (m): sc-140886-SH, AdoMetDC shRNA (h) Lentiviral Particles: sc-95296-V and AdoMetDC shRNA (m) Lentiviral Particles: sc-140886-V.

Molecular Weight of AdoMetDC proenzyme: 42 kDa.

Molecular Weight of AdoMetDC  $\alpha$ : 32 kDa.

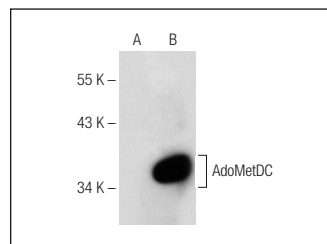
Molecular Weight of AdoMetDC  $\beta$ : 10 kDa.

Positive Controls: AdoMetDC (m2): 293T Lysate: sc-118260, HeLa whole cell lysate: sc-2200 or IMR-32 cell lysate: sc-2409.

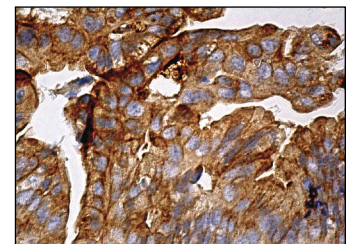
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-mouse IgG-HRP: sc-2005 (dilution range: 1:2000-1:32,000) or Cruz Marker™ compatible goat anti-mouse IgG-HRP: sc-2031 (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 goat anti-mouse IgG-FITC: sc-2010 (dilution range: 1:100-1:400) or goat anti-mouse IgG-TR: sc-2781 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2050 or ABC: sc-2017 mouse IgG Staining Systems.

## DATA



AdoMetDC (D-4): sc-376119. Western blot analysis of AdoMetDC expression in non-transfected: sc-117752 (A) and mouse AdoMetDC transfected: sc-118260 (B) 293T whole cell lysates.



AdoMetDC (D-4): sc-376119. 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.