AdoMetDC (B-9): sc-377230

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 pyruvyl 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 α and β. Active AdoMetDC forms a heterotetramer of two α chains and two β chains. Both AdoMetDC proenzyme processing and mature AdoMetDC catalytic activity are stimulated by putrescine, while catalytic activity is inhibited by iodoacetic acid.

REFERENCES

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

SOURCE
AdoMetDC (B-9) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 5-219 near the N-terminus of AdoMetDC of human origin.

PRODUCT
Each vial contains 200 µg IgG 2kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-377230 P. (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE
Store at 4° C, ***DO NOT FREEZE***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS
AdoMetDC (B-9) is recommended for detection of AdoMetDC 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).

AdoMetDC (B-9) is also recommended for detection of AdoMetDC in additional species, including canine, bovine and porcine.


Molecular Weight of AdoMetDC proenzyme: 42 kDa.
Molecular Weight of AdoMetDC α/β: 32/10 kDa.


RECOMMENDED SUPPORT REAGENTS
To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG BP-HRP: sc-516102 or m-IgG 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-IgGk BP-FITC: sc-516140 or m-IgGk 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-IgGk BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistoamount: sc-45086, or Organio/Limonene Mount: sc-45087.

DATA

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