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Lieferung & Zahlungsart

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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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SANTA CRUZ BIOTECHNOLOGY, INC.

AdoMetDC (m): 293T Lysate: sc-118259

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 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

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2. Tolbert, W.D., et al. 2003. Mechanism of human S-adenosylmethionine decarboxylase proenzyme processing as revealed by the structure of the S68A mutant. Biochemistry 42: 2386-2395.
3. Yerlikaya, A., et al. 2004. S-adenosylmethionine decarboxylase degradation by the 26S Proteasome is accelerated by substrate-mediated transamination. J. Biol. Chem. 279: 12469-12478.
4. Lam, K., et al. 2005. HSG cells differentiated by culture on extracellular matrix involves induction of S-adenosylmethione decarboxylase and ornithine decarboxylase. J. Cell. Physiol. 203: 353-361.
5. Kim, J.S., et al. 2006. S-Adenosylmethionine decarboxylase partially regulates cell growth of HL-60 cells by controlling the intracellular ROS level: early senescence and sensitization to γ-radiation. Arch. Biochem. Biophys. 456: 58-70.
6. Guidotti, A., et al. 2007. S-adenosylmethionine and DNA methyltransferase-1 mRNA overexpression in psychosis. Neuroreport 18: 57-60.
7. Bale, S., et al. 2008. Structural basis for putrescine activation of human S-adenosylmethionine decarboxylase. Biochemistry 47: 13404-13417.
8. Li, W., et al. 2008. Effects of antisense RNA targeting of ODC and AdoMetDC on the synthesis of polyamine synthesis and cell growth in prostate cancer cells using a prostatic androgen-dependent promoter in adenovirus. Prostate 68: 1354-1361.
9. Bale, S., et al. 2009. Role of the sulfonium center in determining the ligand specificity of human S-adenosylmethionine decarboxylase. Biochemistry 48: 6423-6430.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

CHROMOSOMAL LOCATION

Genetic locus: Amd1 (mouse) mapping to 10 B1.

PRODUCT

AdoMetDC (m): 293T Lysate represents a lysate of mouse AdoMetDC transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

AdoMetDC (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive AdoMetDC antibodies. Recommended use: 10-20 µl per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

RESEARCH USE

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

PROTOCOLS

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