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Lieferung & Zahlungsart

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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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MACS1 (m2): 293T Lysate: sc-127117

BACKGROUND

Acyl-CoA synthetases are important for synthesis of cellular lipids and for β -oxidation degradation. MACS1 (middle-chain acyl-CoA synthetase 1), also known as ACSM1 (acyl-CoA synthetase medium-chain family member 1), BUCS1 (butyryl-coenzyme A synthetase 1) or LAE (lipoate-activating enzyme), is a 577 amino acid mitochondrial matrix protein that generates the substrate for lipoyltransferase in a GTP-dependent manner. Existing as a monomer, MACS1 belongs to the ATP-dependent AMP-binding enzyme family and undergoes alternative splicing to produce two isoforms. The gene encoding MACS1 maps to human chromosome 16, which encodes over 900 genes and comprises nearly 3% of the human genome. Giant axonal neuropathy, Rubinstein-Taybi syndrome and Crohn's disease are associated with chromosome 16.

REFERENCES

- Baraitser, M. and Preece, M.A. 1983. The Rubinstein-Taybi syndrome: occurrence in two sets of identical twins. *Clin. Genet.* 23: 318-320.
- Bomont, P., Cavalier, L., Blondeau, F., Ben Hamida, C., Belal, S., Tazir, M., Demir, E., Topaloglu, H., Korinthenberg, R., Tüysüz, B., Landrieu, P., Hentati, F. and Koenig, M. 2000. The gene encoding gigaxonin, a new member of the cytoskeletal BTB/kelch repeat family, is mutated in giant axonal neuropathy. *Nat. Genet.* 26: 370-374.
- Fujino, T., Takei, Y.A., Sone, H., Ioka, R.X., Kamataki, A., Magoori, K., Takahashi, S., Sakai, J. and Yamamoto, T.T. 2001. Molecular identification and characterization of two medium-chain acyl-CoA synthetases, MACS1 and the Sa gene product. *J. Biol. Chem.* 276: 35961-35966.
- Iwai, N., Mannami, T., Tomoike, H., Ono, K. and Iwanaga, Y. 2003. An acyl-CoA synthetase gene family in chromosome 16p12 may contribute to multiple risk factors. *Hypertension* 41: 1041-1046.
- Cho, J.H. 2004. Advances in the genetics of inflammatory bowel disease. *Curr. Gastroenterol. Rep.* 6: 467-473.
- Haketa, A., Soma, M., Nakayama, T., Sato, M., Kosuge, K., Aoi, N. and Matsumoto, K. 2004. Two medium-chain acyl-coenzyme A synthetase genes, SAH and MACS1, are associated with plasma high-density lipoprotein cholesterol levels, but they are not associated with essential hypertension. *J. Hypertens.* 22: 1903-1907.
- Celis, J.E., Gromov, P., Cabezón, T., Moreira, J.M., Friis, E., Jirstrom, K., Llombart-Bosch, A., Timmermans-Wielenga, V., Rank, F. and Gromova, I. 2008. 15-prostaglandin dehydrogenase expression alone or in combination with ACSM1 defines a subgroup of the apocrine molecular subtype of breast carcinoma. *Mol. Cell. Proteomics* 7: 1795-1809.

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.

PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: *Acsml* (mouse) mapping to 7 F2.

PRODUCT

MACS1 (m2): 293T Lysate represents a lysate of mouse MACS1 transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

APPLICATIONS

MACS1 (m2): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive MACS1 antibodies. Recommended use: 10-20 μ l 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.