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## Produktinformation



Forschungsprodukte & Biochemikalien



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Diagnostik & molekulare Diagnostik



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### Lieferung & Zahlungsart

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### Zuschläge

- Mindermengenzuschlag
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- Expressversand

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# ACOT2 (m): 293T Lysate: sc-118204

## BACKGROUND

Acyl-CoA thioesterases (ACOTs) are a group of enzymes that catalyze the hydrolysis of acyl-CoA to form coenzyme A (CoA) and a free fatty acid. Through their catalytic activity, ACOTs are able to regulate the level of fatty acids and acyl-CoAs within the cell. ACOT1 (acyl-CoA thioesterase 1, also known as CTE1) and ACOT2 (acyl-CoA thioesterase 2, also known as PTE2) are members of the ACOT family and exhibit different cellular localization, with ACOT1 existing as a monomer in the cytoplasm and ACOT2 localized primarily to mitochondria. Characteristic of most ACOT proteins, ACOT1 and ACOT2 catalyze the conversion of palmitoyl-CoA and water to free CoA and palmitate, a reaction that is important for the regulation of intercellular fatty acid levels. ACOT2 is expressed as multiple alternatively spliced isoforms and, like ACOT1, is encoded by a gene which maps to human chromosome 14.

## REFERENCES

1. Jones, J.M. and Gould, S.J. 2000. Identification of PTE2, a human peroxisomal long-chain acyl-CoA thioesterase. *Biochem. Biophys. Res. Commun.* 275: 233-240.
2. Ishizuka, M., Toyama, Y., Watanabe, H., Fujiki, Y., Takeuchi, A., Yamasaki, S., Yuasa, S., Miyazaki, M., Nakajima, N., Taki, S. and Saito, T. 2004. Overexpression of human acyl-CoA thioesterase upregulates peroxisome biogenesis. *Exp. Cell Res.* 297: 127-141.
3. Westin, M.A., Alexson, S.E. and Hunt, M.C. 2004. Molecular cloning and characterization of two mouse peroxisome proliferator-activated receptor  $\alpha$  (PPAR $\alpha$ )-regulated peroxisomal acyl-CoA thioesterases. *J. Biol. Chem.* 279: 21841-21848.
4. Hunt, M.C., Yamada, J., Maltais, L.J., Wright, M.W., Podesta, E.J. and Alexson, S.E. 2005. A revised nomenclature for mammalian acyl-CoA thioesterases/hydrolases. *J. Lipid Res.* 46: 2029-2032.
5. Hunt, M.C., Rautanen, A., Westin, M.A., Svensson, L.T. and Alexson, S.E. 2006. Analysis of the mouse and human acyl-CoA thioesterase (ACOT) gene clusters shows that convergent, functional evolution results in a reduced number of human peroxisomal ACOTs. *FASEB J.* 20: 1855-1864.
6. Online Mendelian Inheritance in Man, OMIM<sup>™</sup>. 2006. Johns Hopkins University, Baltimore, MD. MIM Number: 609972. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
7. Rudolph, M.C., Neville, M.C. and Anderson, S.M. 2007. Lipid synthesis in lactation: diet and the fatty acid switch. *J. Mammary Gland Biol. Neoplasia* 12: 269-281.
8. Oka, S., Yoshihara, E., Bizen-Abe, A., Liu, W., Watanabe, M., Yodoi, J. and Masutani, H. 2009. Thioredoxin binding protein-2/thioredoxin-interacting protein is a critical regulator of Insulin secretion and peroxisome proliferator-activated receptor function. *Endocrinology* 150: 1225-1234.

## CHROMOSOMAL LOCATION

Genetic locus: *Acot2* (mouse) mapping to 12 D1.

## RESEARCH USE

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

## PRODUCT

ACOT2 (m): 293T Lysate represents a lysate of mouse ACOT2 transfected 293T cells and is provided as 100  $\mu$ g protein in 200  $\mu$ l SDS-PAGE buffer.

## APPLICATIONS

ACOT2 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive ACOT2 antibodies. Recommended use: 10-20  $\mu$ l per lane.

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

## 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](http://www.scbt.com) for detailed protocols and support products.