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### Zuschläge

- Mindermengenzuschlag
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- Expressversand

### SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

[mail@szabo-scandic.com](mailto:mail@szabo-scandic.com)

[www.szabo-scandic.com](http://www.szabo-scandic.com)

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

# HACL1 (m): 293T Lysate: sc-120701

## BACKGROUND

HACL1 (2-hydroxyacyl-CoA lyase 1) is also known as HPCL or 2-HPCL (2-hydroxyphytanoyl-CoA lyase) and is a 578 amino acid protein. HACL1 is abundantly expressed in liver, and is also expressed in kidney, heart and skeletal muscle, where it is localized to peroxisomes. HACL1 functions in lipid metabolism as well as fatty acid metabolism and is able to form homotetramers. Phytol, a breakdown product of chlorophyll, is converted into phytanic acid which undergoes  $\alpha$ -oxidation. Through a series of reactions during  $\alpha$ -oxidation, phytanic acid is converted into 2-hydroxyphytanoyl-CoA which reacts with HACL1 to yield pristanal and formyl-CoA. The  $\alpha$ -oxidation of fatty acids by HACL1, including 3-methyl-branched fatty acids and 2-hydroxylated straight chain fatty acids, promotes carbon-carbon cleavage resulting in a reaction that forms formyl-CoA and a 2-methyl-branched fatty aldehyde. HACL1 is a member of the TPP (thiamine pyrophosphate) enzyme family and TPP is thought to be a cofactor of HACL1 during  $\alpha$ -oxidation. Thiamine depletion, present in patients with severe malnutrition, chronic alcoholism and AIDS, can lead to Wernicke-Korsakoff syndrome and affects  $\alpha$ -oxidation by lowering the level and activity of HACL1.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: HACL1 (mouse) mapping to 14 B.

## PRODUCT

HACL1 (m): 293T Lysate represents a lysate of mouse HACL1 transfected 293T cells and is provided as 100  $\mu$ g protein in 200  $\mu$ l SDS-PAGE buffer.

## APPLICATIONS

HACL1 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive HACL1 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.

## 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) for detailed protocols and support products.