



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!  
See the following pages for more information!



### Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

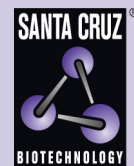
T. +43(0)1 489 3961-0

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) 



# OSC (h3): 293T Lysate: sc-170591

## BACKGROUND

OSC, also known as LSS (lanosterol synthase), is a 732 amino acid protein that contains four PFTB repeats and belongs to the terpene cyclase family. Functioning in the pathway of terpene metabolism, OSC catalyzes the first step in the biosynthesis of cholesterol, vitamin D and steroid hormones, namely the conversion of (S)-2,3 oxidosqualene to lanosterol. Lanosterol is a tetracyclic triterpenoid that is required for the synthesis of all steroids. Due to its role in lanosterol production, OSC is crucial for proper cholesterol formation and overall steroid function. Human OSC shares 83% homology with its rat counterpart, suggesting a conserved role between species. Multiple isoforms of OSC exist as a result of alternative splicing events.

## REFERENCES

1. Baker, C.H., Matsuda, S.P., Liu, D.R. and Corey, E.J. 1995. Molecular cloning of the human gene encoding lanosterol synthase from a liver cDNA library. *Biochem. Biophys. Res. Commun.* 213: 154-160.
2. Sung, C.K., Shibuya, M., Sankawa, U. and Ebizuka, Y. 1995. Molecular cloning of cDNA encoding human lanosterol synthase. *Biol. Pharm. Bull.* 18: 1459-1461.
3. Young, M., Chen, H., Lalioti, M.D. and Antonarakis, S.E. 1996. The human lanosterol synthase gene maps to chromosome 21q22.3. *Hum. Genet.* 97: 620-624.
4. Mark, M., Muller, P., Maier, R. and Eisele, B. 1996. Effects of a novel 2,3-oxidosqualene cyclase inhibitor on the regulation of cholesterol biosynthesis in Hep G2 cells. *J. Lipid Res.* 37: 148-158.
5. Roessler, E., Mittaz, L., Du, Y., Scott, H.S., Chang, J., Rossier, C., Guipponi, M., Matsuda, S.P., Muenke, M. and Antonarakis, S.E. 1999. Structure of the human lanosterol synthase gene and its analysis as a candidate for holoprosencephaly (HPE1). *Hum. Genet.* 105: 489-495.
6. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 600909. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
7. Ruf, A., Müller, F., D'Arcy, B., Stihle, M., Kuszniir, E., Handschin, C., Morand, O.H. and Thoma, R. 2004. The monotopic membrane protein human oxidosqualene cyclase is active as monomer. *Biochem. Biophys. Res. Commun.* 315: 247-254.
8. Ma, J., Dempsey, A.A., Stamatiou, D., Marshall, K.W. and Liew, C.C. 2007. Identifying leukocyte gene expression patterns associated with plasma lipid levels in human subjects. *Atherosclerosis* 191: 63-72.
9. Lu, Y., Dollé, M.E., Imholz, S., Slot, R.V., Verschuren, W.M., Wijmenga, C., Feskens, E.J. and Boer, J.M. 2008. Multiple genetic variants along candidate pathways influence plasma high-density lipoprotein cholesterol concentrations. *J. Lipid Res.* 49: 2582-2589

## CHROMOSOMAL LOCATION

Genetic locus: LSS (human) mapping to 21q22.3.

## RESEARCH USE

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

## PRODUCT

OCS (h3): 293T Lysate represents a lysate of human OCS transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

## APPLICATIONS

OCS (h3): 293T Lysate is suitable as a Western Blotting positive control for human reactive OCS 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.

## 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.