

# LASS2 (O-24): sc-133724

## BACKGROUND

The LASS (longevity assurance homolog) family members are highly conserved from yeasts to mammals. Six members of this family of proteins involved in sphingolipid synthesis have been characterized (LASS1, LASS2, LASS3, LASS4, LASS5 and LASS6). LASS2 is a 380 amino acid multi-pass membrane protein expressed in kidney, liver, brain, heart, placenta and lung. LASS2 suppresses the growth of cancer cells and is involved in sphingolipid synthesis. Over-production of LASS2 increases the levels of long ceramides such as C22:0- and C24:0-ceramides. The N-terminal asparagine residue serves as a site for glycosylation on the luminal side of the endoplasmic reticulum membrane. LASS2 interacts with several membrane-associated receptors or transporters including ASGPR1, ASGPR2 and OCT1.

## REFERENCES

1. Pan, H., et al. 2001. Cloning, mapping, and characterization of a human homologue of the yeast longevity assurance gene LAG1. *Genomics* 77: 58-64.
2. Mizutani, Y., et al. 2005. Mammalian LASS6 and its related family members regulate synthesis of specific ceramides. *Biochem. J.* 390: 263-271.
3. Cai, X.F., et al. 2005. Study of the expression membrane protein LASS2. *Sheng Wu Gong Cheng Xue Bao* 19: 69-73.
4. Yu, Y., et al. 2006. Expression of LASS2 controlled by LAG1 or ADH1 promoters cannot functionally complement Lag1p. *Microbiol. Res.* 161: 203-211.
5. Mizutani, Y., et al. 2006. LASS3 (longevity assurance homologue 3) is a mainly testis-specific (dihydro)ceramide synthase with relatively broad substrate specificity. *Biochem. J.* 398: 531-538.
6. Schulz, A., et al. 2006. The CLN9 protein, a regulator of dihydroceramide synthase. *J. Biol. Chem.* 281: 2784-2794.

## CHROMOSOMAL LOCATION

Genetic locus: CERS2 (human) mapping to 1q21.3; Lass2 (mouse) mapping to 3 F2.1.

## SOURCE

LASS2 (O-24) is an affinity purified rabbit polyclonal antibody raised against synthetic LASS2 peptide of human origin.

## PRODUCT

Each vial contains 50 µg IgG in 500 µl PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

## APPLICATIONS

LASS2 (O-24) is recommended for detection of LASS2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for LASS2 siRNA (h): sc-62545, LASS2 siRNA (m): sc-62546, LASS2 shRNA Plasmid (h): sc-62545-SH, LASS2 shRNA Plasmid (m): sc-62546-SH, LASS2 shRNA (h) Lentiviral Particles: sc-62545-V and LASS2 shRNA (m) Lentiviral Particles: sc-62546-V.

Molecular Weight of LASS2: 45 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, K-562 whole cell lysate: sc-2203 or Jurkat whole cell lysate: sc-2204.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

## RESEARCH USE

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



Try **LASS2 (C-11): sc-390745** or **LASS2 (FT-7): sc-100553**, our highly recommended monoclonal alternatives to LASS2 (O-24).