## SANTA CRUZ BIOTECHNOLOGY, INC.

# LASS2 (K-17): sc-65104



## 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

- Pan, H., Qin, W.X., Huo, K.K., Wan, D.F., Yu, Y., Xu, Z.G., Hu, Q.D., Gu, K.T., Zhou, X.M., Jiang, H.Q., Zhang, P.P., Huang, Y., Li, Y.Y. and Gu, J.R. 2001. Cloning, mapping and characterization of a human homologue of the yeast longevity assurance gene LAG1. Genomics 77: 58-64.
- Mizutani, Y., Kihara, A. and Igarashi, Y. 2005. Mammalian LASS6 and its related family members regulate synthesis of specific ceramides. Biochem. J. 390: 263-271.
- Cai, X.F., Tao, Z., Cao, Y., Yang, S.L. and Gong, Y. 2005. Study of the expression membrane protein LASS2. Sheng Wu Gong Cheng Xue Bao 19: 69-73.
- Yu, Y., Lu, H., Pan, H., Ma, J.H., Ding, Z.J. and Li, Y.Y. 2006. Expression of LASS2 controlled by LAG1 or ADH1 promoters cannot functionally complement LAG1p. Microbiol. Res. 161: 203-211.
- Mizutani, Y., Kihara, A. and Igarashi, Y. 2006. LASS3 (longevity assurance homologue 3) is a mainly testis-specific (dihydro)ceramide synthase with relatively broad substrate specificity. Biochem. J. 398: 531-538.
- Schulz, A., Mousallem, T., Venkataramani, M., Persaud-Sawin, D.A., Zucker, A., Luberto, C., Bielawska, A., Bielawski, J., Holthuis, J.C., Jazwinski, S.M., Kozhaya, L., Dbaibo, G.S. and Boustany, R.M. 2006. The CLN9 protein, a regulator of dihydroceramide synthase. J. Biol. Chem. 281: 2784-2794.

### CHROMOSOMAL LOCATION

Genetic locus: Lass2 (rat) mapping to 2q34.

### SOURCE

LASS2 (K-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of LASS2 of rat origin.

## PRODUCT

Each vial contains 200  $\mu g$  IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-65104 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-65104 X, 200  $\mu g/0.1$  ml.

## APPLICATIONS

LASS2 (K-17) is recommended for detection of LASS2 of rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

LASS2 (K-17) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of LASS2: 45 kDa.

#### **RECOMMENDED SECONDARY REAGENTS**

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluo-rescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## **STORAGE**

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. 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 or our catalog for detailed protocols and support products.