

# LASS3 (T-17): sc-55962

## BACKGROUND

The LASS (longevity assurance homolog) family members are highly conserved from yeast to mammals. Six members of this family of proteins have been characterized (LASS1, LASS2, LASS3, LASS4, LASS5 and LASS6) and they are all involved in sphingolipid synthesis. LASS3 is a 383 amino acid membrane protein almost exclusively expressed in testis, suggesting that LASS3 plays an important role in proper testis function. It is also weakly expressed in skin. A transcriptional variant of LASS3 cDNA exists and can result in the production of a 419 amino acid protein (LASS3-long). LASS3 overproduction raises the level of several ceramide species, including C18:0- and C24:0-ceramides.

## REFERENCES

1. Xu, Z., et al. 2005. LASS5 is the predominant ceramide synthase isoform involved in *de novo* sphingolipid synthesis in lung epithelia. *J. Lipid Res.* 46: 1229-1238.
2. Weinmann, A., et al. 2005. LASS6, an additional member of the longevity assurance gene family. *Int. J. Mol. Med.* 16: 905-910.
3. Mizutani, Y., et al. 2005. Mammalian LASS6 and its related family members regulate synthesis of specific ceramides. *Biochem. J.* 390: 263-271.
4. 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.
5. Schulz, A., et al. 2006. The CLN9 protein, a regulator of dihydroceramide synthase. *J. Biol. Chem.* 281: 2784-2794.

## CHROMOSOMAL LOCATION

Genetic locus: CERS3 (human) mapping to 15q26.3.

## SOURCE

LASS3 (T-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of LASS3 of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-55962 P, (100 µg 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-55962 X, 200 µg/0.1 ml.

## 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

LASS3 (T-17) is recommended for detection of LASS3 of 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)], 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).

LASS3 (T-17) is also recommended for detection of LASS3 in additional species, including equine and canine.

Suitable for use as control antibody for LASS3 siRNA (h): sc-62547, LASS3 shRNA Plasmid (h): sc-62547-SH and LASS3 shRNA (h) Lentiviral Particles: sc-62547-V.

LASS3 (T-17) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight (predicted) of LASS3: 46 kDa.

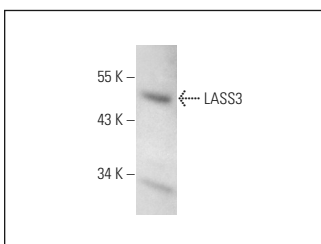
Molecular Weight (observed) of LASS3: 42/46 kDa.

Positive Controls: Jurkat nuclear extract: sc-2132 or HeLa nuclear extract: sc-2120.

## 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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: 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.

## DATA



LASS3 (T-17): sc-55962. Western blot analysis of LASS3 expression in Jurkat nuclear extract.

## RESEARCH USE

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