

LASS5 (H-45): sc-135038

BACKGROUND

The LASS (longevity assurance homolog) family members are highly conserved from yeasts 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. LASS5, also called Trh4, is a 392 amino acid endoplasmic reticulum, multi-pass membrane protein. On the luminal side of the endoplasmic reticulum membrane, the N-terminal asparagine residue is glycosylated. Functioning as a bonafide (dihydro)ceramide synthase, LASS5 increases the levels of short ceramide species, such as C14:0- and C16:0-ceramides, as well as those selectively enriched in palmitic acid. LASS5 is the most abundantly expressed longevity assurance homolog in lung epithelia, where it functions as a regulator of PtdCho metabolism. In cells deficient for CLN9, as observed in neuronal ceroid lipofuscinosis (NCL) or Batten disease, LASS5 can increase ceramide levels and partially correct growth and apoptosis.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: LASS5 (human) mapping to 12q13.12; Lass5 (mouse) mapping to 15 F1.

SOURCE

LASS5 (H-45) is a rabbit polyclonal antibody raised against amino acids 151-195 mapping within an internal region of LASS5 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.

APPLICATIONS

LASS5 (H-45) is recommended for detection of LASS5 of human, mouse and, to a lesser extent, rat 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).

LASS5 (H-45) is also recommended for detection of LASS5 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for LASS5 siRNA (h): sc-62551, LASS5 siRNA (m): sc-62552, LASS5 shRNA Plasmid (h): sc-62551-SH, LASS5 shRNA Plasmid (m): sc-62552-SH, LASS5 shRNA (h) Lentiviral Particles: sc-62551-V and LASS5 shRNA (m) Lentiviral Particles: sc-62552-V.

Molecular Weight of LASS5: 46 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Jurkat whole cell lysate: sc-2204 or Jurkat nuclear extract: sc-2132.

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). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (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.