

**LASS6 Antibody**  
**Catalog # ASC10813****Specification**

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**LASS6 Antibody - Product Information**

Application	WB, IHC, IF
Primary Accession	<a href="#">Q6ZMG9</a>
Other Accession	<a href="#">AAI09285</a> , <a href="#">80478334</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Application Notes	LASS6 antibody can be used for detection of LASS6 by Western blot at 1 - 2 µg/mL. Antibody can also be used for immunohistochemistry starting at 2.5 µg/mL. For immunofluorescence start at 20 µg/mL.

**LASS6 Antibody - Additional Information**Gene ID **253782****Target/Specificity**

LASS6; At least two isoforms of LASS6 are known to exist. This antibody is predicted not to cross-react with LASS5.

**Reconstitution & Storage**

LASS6 antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

**Precautions**

LASS6 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**LASS6 Antibody - Protein Information****Name** CERS6 ([HGNC:23826](#))**Function**

Ceramide synthase that catalyzes the transfer of the acyl chain from acyl-CoA to a sphingoid base, with high selectivity toward palmitoyl-CoA (hexadecanoyl-CoA; C16:0-CoA) (PubMed:<a href="http://www.uniprot.org/citations/17977534" target="\_blank">17977534</a>, PubMed:<a href="http://www.uniprot.org/citations/17609214" target="\_blank">17609214</a>, PubMed:<a href="http://www.uniprot.org/citations/23530041" target="\_blank">23530041</a>, PubMed:<a href="http://www.uniprot.org/citations/26887952" target="\_blank">26887952</a>, PubMed:<a href="http://www.uniprot.org/citations/31916624" target="\_blank">31916624</a>). Can use other acyl donors, but with less efficiency (By similarity). N-acylates sphinganine and sphingosine bases to form dihydroceramides and ceramides in de novo synthesis and salvage pathways,

respectively (PubMed:<a href="http://www.uniprot.org/citations/17977534" target="\_blank">17977534</a>, PubMed:<a href="http://www.uniprot.org/citations/23530041" target="\_blank">23530041</a>, PubMed:<a href="http://www.uniprot.org/citations/26887952" target="\_blank">26887952</a>, PubMed:<a href="http://www.uniprot.org/citations/31916624" target="\_blank">31916624</a>). Ceramides generated by CERS6 play a role in inflammatory response (By similarity). Acts as a regulator of metabolism and hepatic lipid accumulation (By similarity). Under high fat diet, palmitoyl- (C16:0-) ceramides generated by CERS6 specifically bind the mitochondrial fission factor MFF, thereby promoting mitochondrial fragmentation and contributing to the development of obesity (By similarity).

#### Cellular Location

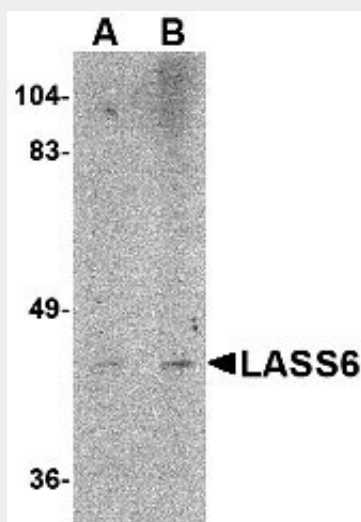
Endoplasmic reticulum membrane {ECO:0000250|UniProtKB:Q8C172}; Multi-pass membrane protein {ECO:0000250|UniProtKB:Q8C172}

#### LASS6 Antibody - Protocols

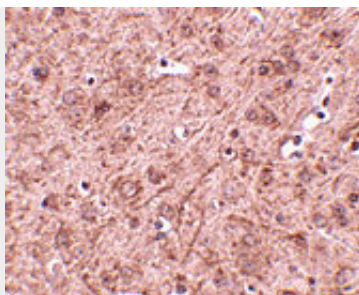
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

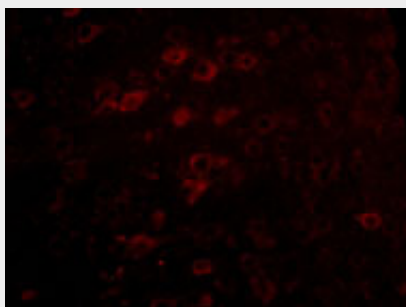
#### LASS6 Antibody - Images



Western blot analysis of LASS6 in rat brain tissue lysate with LASS6 antibody at (A) 1 and (B) 2 µg/mL.



Immunohistochemistry of LASS6 in mouse brain tissue with LASS6 antibody at 2.5 µg/mL.



Immunofluorescence of LASS6 in Mouse Brain cells with LASS6 antibody at 5 µg/mL.

### **LASS6 Antibody - Background**

**LASS6 Antibody:** The LASS (longevity assurance homolog) family members represent a subgroup of the homeobox gene family and are highly conserved from yeasts to mammals. Six members of this family of proteins have been characterized (LASS1-6) and all are involved in ceramide synthesis during cell growth regulation and cancer differentiation. Like the highly homologous LASS5, LASS6 is also an endoplasmic reticulum, multi-pass membrane protein. LASS6 is also involved in the synthesis of C14, C16 and C18-ceramide, but shows a preference for unsaturated fatty acids. LASS6 is broadly expressed in a wide range of tissues and microarray data suggests that it may play a role in cancer differentiation and early embryonic development.

### **LASS6 Antibody - References**

Riebeling C, Allegood JC, Wang E, et al. Two mammalian longevity assurance gene (LAG1) family members, Trh1 and Trh, regulate dihydroceramide synthesis using different fatty acyl-CoA donors. *J. Biol. Chem.* 2003; 278:43452-9.

Mizutani Y, Kihara A and Igarashi Y. Mammalian Lass6 and its related family members regulate synthesis of specific ceramides. *Biochem. J.* 2005; 390:263-71.

Lahiri S and Futerman AH. LASS5 is a bona fide dihydroceramide synthase that selectively utilizes palmitoyl-CoA as acyl donor. *J. Biol Chem.* 2005; 280:33735-8.

Weinmann A, Galle PR, and Teufel A. LASS6, an additional member of the longevity assurance gene family. *Int. J. Mol. Med.* 2005; 16:905-10.