

# LASS6 Antibody

Catalog # ASC10813

## Product Information

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<b>Application</b>	WB, IF, E, IHC-P
<b>Primary Accession</b>	<a href="#">Q6ZMG9</a>
<b>Other Accession</b>	<a href="#">AAI09285</a> , <a href="#">80478334</a>
<b>Reactivity</b>	Human, Mouse, Rat
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG
<b>Calculated MW</b>	44890
<b>Concentration (mg/ml)</b>	1 mg/mL
<b>Conjugate</b>	Unconjugated
<b>Application Notes</b>	LASS6 antibody can be used for detection of LASS6 by Western blot at 1 - 2 $\mu$ g/mL. Antibody can also be used for immunohistochemistry starting at 2.5 $\mu$ g/mL. For immunofluorescence start at 20 $\mu$ g/mL.

## Additional Information

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<b>Gene ID</b>	253782
<b>Other Names</b>	Ceramide synthase 6, CerS6, LAG1 longevity assurance homolog 6, CERS6, LASS6
<b>Target/Specificity</b>	LASS6; At least two isoforms of LASS6 are known to exist. This antibody is predicted not to cross-react with LASS5.
<b>Reconstitution &amp; Storage</b>	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.
<b>Precautions</b>	LASS6 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

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<b>Name</b>	CERS6 ( <a href="#">HGNC:23826</a> )
<b>Function</b>	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="#">17609214</a> , PubMed: <a href="#">17977534</a> , PubMed: <a href="#">23530041</a> , PubMed: <a href="#">26887952</a> , PubMed: <a href="#">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="#">17977534</a> , PubMed: <a href="#">23530041</a> , PubMed: <a href="#">26887952</a> , PubMed: <a href="#">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}

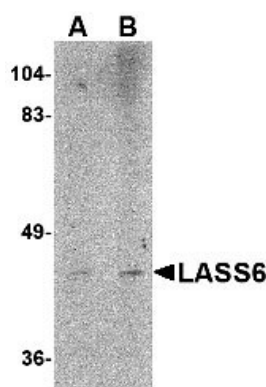
## Background

**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.

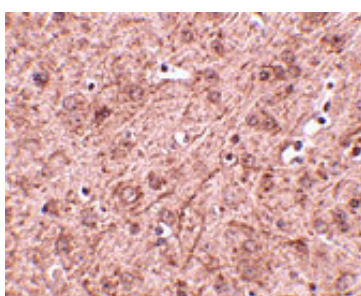
## References

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.

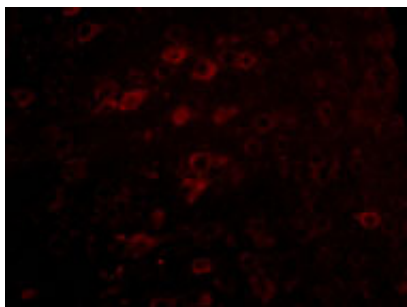
## Images



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  $\mu\text{g/mL}$ .

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.