

PRODUCT INFORMATION



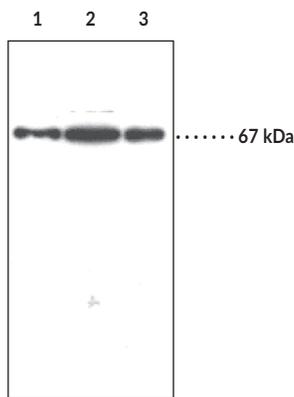
Serine Palmitoyltransferase Polyclonal Antibody

Item No. 10005260

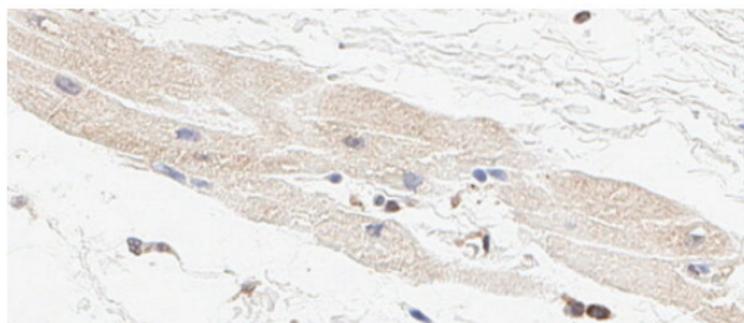
Overview and Properties

Contents:	This vial contains peptide affinity-purified IgG.
Synonyms:	Long Chain Biosynthesis Protein 2 (LCB2), Serine-palmitoyl-CoA transferase 2 (SPT2)
Immunogen:	Synthetic peptide from the C-terminal region of human SPT2
Cross Reactivity:	(-) SPT1
Species Reactivity:	(+) Human, bovine, mouse, ovine, porcine, rat, African green monkey SPT2
Uniprot No.:	O15270
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥3 years
Storage Buffer:	PBS, pH 7.2, with 50% glycerol and 0.02% sodium azide
Host:	Rabbit
Applications:	Immunohistochemistry (IHC) and Western blot (WB); the recommended starting dilution for IHC is 1:600 and 1:200 for WB. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Images



Lane 1: Mouse brain homogenate (15 µg)
Lane 2: Rat kidney supernatant (30 µg)
Lane 3: Human liver microsomes (30 µg)



Immunohistochemistry analysis of formalin-fixed, paraffin-embedded (FFPE) human heart tissue after heat induced antigen retrieval in pH 6.0 citrate buffer. After incubation with Serine Palmitoyltransferase Polyclonal Antibody (Item No. 10005260) at a 1:120 dilution, slides were incubated with biotinylated secondary antibody, followed by alkaline phosphatase-streptavidin and chromogen (DAB).

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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Description

Sphingolipids play essential roles in various cellular events, including proliferation, differentiation, senescence, apoptosis, and inflammatory responses.¹ Serine palmitoyltransferase (SPT) is the initial and rate-limiting enzyme in *de novo* sphingolipid biosynthesis, and thus regulates the level of sphingolipids in cells.² Immunohistochemical studies revealed widespread distribution of the enzyme with strongest expression in brain and digestive tract.³ Two subunits, SPT1 and SPT2 at a stoichiometry of 1:1, are involved in the enzymatic activity of SPT.⁴

Cayman Chemical's SPT2 Polyclonal Antibody recognizes SPT2, the long chain subunit of the enzyme. The antibody stains mainly cell nuclei and occasionally both cell nuclei and cytoplasm in formalin-fixed, paraffin-embedded rat brain tissue. The nuclear localization of SPT2 may suggest that SPT2 associates with another nuclear protein or is modified and transported to the nucleus.²

References

1. Mathias, S., Peña, L.A., and Kolesnick, R.N. Signal transduction of stress *via* ceramide. *Biochem J.* **335**, 465-480 (1998).
2. Carton, J.M., Uhlinger, D.J., Batheja, A.D., *et al.* Enhanced serine palmitoyltransferase expression in proliferating fibroblasts, transformed cell lines, and human tumors. *J. Histochem. Cytochem.* **51(6)**, 715-726 (2003).
3. Batheja, A.D., Uhlinger, D.J., Carton, J.M., *et al.* Characterization of serine palmitoyltransferase in normal human tissues. *J. Histochem. Cytochem.* **51(5)**, 687-696 (2003).
4. Hanada, K., Hara, T., and Nishijima, M. Purification of the serine palmitoyltransferase complex responsible for sphingoid base synthesis by using affinity peptide chromatography techniques. *J. Biol. Chem.* **275(12)**, 8409-8415 (2000).

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