

Anti-SPT2 SPTLC2 Antibody

Catalog Number: A05504

About SPTLC2

Serine palmitoyltransferase (SPT), which consists of two different subunits, is the key enzyme in sphingolipid biosynthesis. It converts L-serine and palmitoyl-CoA to 3-oxosphinganine with pyridoxal 5'-phosphate as a cofactor. SPT2 is the long chain base subunit 2 of mammalian serine palmitoyltransferase. SPT2 is catalytically active but needs its related protein SPT1 for its stabilization and anchoring the holoenzyme to the cytosolic face of the endoplasmic reticulum. As in the case with SPT1, mutations in the SPT2 gene can cause hereditary sensory and autonomic neuropathy type I (HSAN-I), resulting from a loss of SPT activity as well as the accumulation of the atypical and neurotoxic sphingoid metabolite 1-deoxy-sphinganine.

Overview

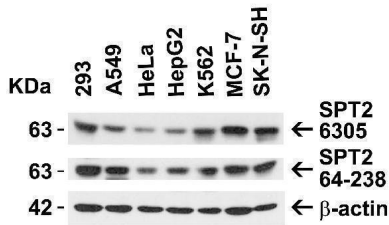
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|----------------------|---|
| Product Name | Anti-SPT2 SPTLC2 Antibody |
| Reactive Species | Human, Mouse |
| Description | Boster Bio Anti-SPT2 SPTLC2 Antibody (Catalog # A05504). Tested in ELISA, WB, ICC, IF applications. This antibody reacts with Human, Mouse. |
| Application | ELISA, IF, ICC, WB |
| Clonality | Polyclonal |
| Formulation | SPT2 Antibody is supplied in PBS containing 0.02% sodium azide. |
| Storage Instructions | SPT2 antibody can be stored at 4°C for three months and -20°C, stable for up to one year. Avoid repeated freeze-thaw cycles. Antibodies should not be exposed to prolonged high temperatures. |
| Host | Rabbit |
| Uniprot ID | O15270 |

Technical Details

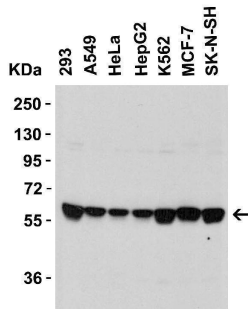
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|----------------------------|---|
| Immunogen | Anti-SPT2 antibody was raised against a peptide corresponding to 15 amino acids near the carboxy terminus of human SPT2. The immunogen is located within the last 50 amino acids of SPT2. |
| Predicted Reactive Species | Rat |
| Cross Reactivity | SPT2 antibody is predicted to not cross-react with SPT1. |
| Isotype | IgG |
| Form | Liquid |
| Concentration | 1 mg/mL |

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|---------------------|---|
| Purification | SPT2 Antibody is affinity chromatography purified via peptide column. |
| Suggested Dilutions | WB: 0.5-1 ug/mL; ICC: 10 ug/mL; IF: 20 ug/mL. Antibody validated: Western Blot in human and mouse samples; Immunocytochemistry in mouse samples; Immunofluorescence in mouse samples. All other applications and species not yet tested. Optimal dilutions for each application should be determined by the researcher. |

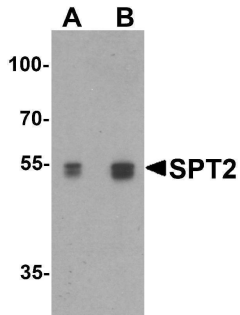
Anti-SPT2 SPTLC2 Antibody (A05504) Images



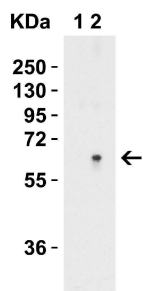
Independent Antibody Validation (IAV) via Protein Expression Profile in Human Cell Lines Loading: 15 ug of lysates per lane. Antibodies: SPT2, A05504 (1 ug/mL), SPT2, 64-238 (1 ug/mL), and beta-actin (1 ug/mL), 1h incubation at RT in 5% NFDM/TBST. Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution.



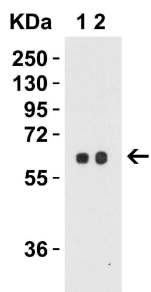
Western Blot Validation in Human Cell Lines Loading: 15 ug of lysates per lane. Antibodies: SPT2, A05504 (1 ug/mL), 1h incubation at RT in 5% NFDM/TBST. Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution.



Western Blot Validation in Mouse 3T3 Cell Lysate in (A) the absence and (B) the presence of blocking peptide Loading: 15 ug of lysates per lane. Antibodies: SPT2, A05504 (0.5 ug/mL), 1h incubation at RT in 5% NFDM/TBST. Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution.



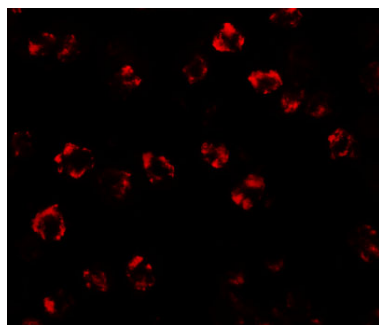
Western Blot Validation in Human Brain Tissue Lysate Loading: 15 ug of lysates per lane. Antibodies: SPT2, A05504 (Lane 1: 0.5 ug/mL and Lane 2: 1 ug/mL), 1h incubation at RT in 5% NFDM/TBST. Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution.



Western Blot Validation in Mouse 3T3/NIH Cell Lysate Loading: 15 ug of lysates per lane. Antibodies: SPT2, A05504 (Lane 1: 0.5 ug/mL and Lane 2: 1 ug/mL), 1h incubation at RT in 5% NFDM/TBST. Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution.



Immunocytochemistry Validation of SPT2 in Mouse 3T3 Cells
Immunocytochemical analysis of 3T3 cells using anti-SPT2 antibody (A05504) at 10 ug/ml. Cells was fixed with formaldehyde and blocked with 10% serum for 1 h at RT; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody overnight at 4°C. A goat anti-rabbit IgG H&L (HRP) at 1/250 was used as secondary. Counter stained with Hematoxylin.



Immunofluorescence Validation of SPT2 in Mouse 3T3 Cells
Immunofluorescent analysis of 4% paraformaldehyde-fixed 3T3 Cells labeling SPT2 with A05504 at 20 ug/mL, followed by goat anti-rabbit IgG secondary antibody at 1/500 dilution (red).

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Anti-SPT2 SPTLC2 Antibody

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