SANTA CRUZ BIOTECHNOLOGY, INC.

SP-lyase (E-19): sc-51429

BACKGROUND

Sphingosine-1-phosphate lyase (SP-lyase) is a member of the group II decarboxylase family that is involved in lipid metabolism. SP-lyase has a variety of functions contributing to normal development, including maintenance of the reproductive system, stress responses, tissue integrity and cell survival. Located in the membrane of the endoplasmic reticulum, SP-lyase is responsible for the irreversible degradation of sphingosine-1-phosphate (S1P). S1P is a lipid important in cell proliferation and migration and, once cleaved by SP-lyase, is degraded into fatty acids and phosphoethanolamine. Through its ability to regulate S1P expression, SP-lyase may play a role in stress-induced apoptosis and is thought to exhibit tumor suppressor activity by silencing S1P activity. Current research suggests that SP-lyase may be a useful target for cancer therapy drugs, as increasing its expression during tumorigenesis may help to regulate cell proliferation.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: SGPL1 (human) mapping to 10q21; Sgpl1 (mouse) mapping to 10 B4.

SOURCE

SP-lyase (E-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a cytoplasmic domain of SP-lyase 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.

Blocking peptide available for competition studies, sc-51429 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

SP-lyase (E-19) is recommended for detection of SP-lyase of human, rat and, to a lesser extent, mouse origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

Suitable for use as control antibody for SP-lyase siRNA (h): sc-72291, SP-lyase siRNA (m): sc-72292, SP-lyase shRNA Plasmid (h): sc-72291-SH, SP-lyase shRNA Plasmid (m): sc-72292-SH, SP-lyase shRNA (h) Lentiviral Particles: sc-72291-V and SP-lyase shRNA (m) Lentiviral Particles: sc-72292-V.

Molecular Weight of SP-lyase: 63 kDa.

Positive Controls: HUV-EC-C whole cell lysate.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (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.