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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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SANTA CRUZ BIOTECHNOLOGY, INC.

Acid Ceramidase (F-9): sc-518165

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Acid Ceramidase catalyzes the degradation of ceramide in normal tissues, and deficiency leads to accumulation of ceramide in tissues, a hallmark of Farber disease. Effected individuals experience early onset joint problems and neurological problems, owing to mutations in the Acid Ceramidase gene. Bioinformatic analysis of gene expression also reveals Acid Ceramidase to be among the five most important genes associated with melanoma. In addition to ceramide hydrolysis, purified Acid Ceramidase also exhibits the ability to catalyze ceramide synthesis, utilizing [14C]lauric acid and sphingosine as substrates. Interestingly, pH regulates which reaction is favored; for hydrolysis the pH optimum is 4.5, whereas for the reverse reaction favors a pH of 5.5, further supporting a complex and central role for Acid Ceramidase in sphingolipid metabolism.

REFERENCES

1. Bernardo, K., et al. 1995. Purification, characterization, and biosynthesis of human Acid Ceramidase. J. Biol. Chem. 270: 11098-11102.
2. Koch, J., et al. 1996. Molecular cloning and characterization of a full-length complementary DNA encoding human Acid Ceramidase. Identification of the first molecular lesion causing Farber disease. J. Biol. Chem. 271: 33110-33115.
3. Strelow, A., et al. 2000. Overexpression of Acid Ceramidase protects from tumor necrosis factor-induced cell death. J. Exp. Med. 192: 601-612.
4. Linke, T., et al. 2001. Interfacial regulation of Acid Ceramidase activity. Stimulation of ceramide degradation by lysosomal lipids and sphingolipid activator proteins. J. Biol. Chem. 276: 5760-5768.
5. Ferlinz, K., et al. 2001. Human Acid Ceramidase: processing, glycosylation, and lysosomal targeting. J. Biol. Chem. 276: 35352-35360.

CHROMOSOMAL LOCATION

Genetic locus: ASAH1 (human) mapping to 8p22.

SOURCE

Acid Ceramidase (F-9) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 292-316 of Acid Ceramidase β of human origin.

PRODUCT

Each vial contains 200 µg IgM kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Acid Ceramidase (F-9) is available conjugated to agarose (sc-518165 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-518165 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-518165 PE), fluorescein (sc-518165 FITC), Alexa Fluor® 488 (sc-518165 AF488), Alexa Fluor® 546 (sc-518165 AF546), Alexa Fluor® 594 (sc-518165 AF594) or Alexa Fluor® 647 (sc-518165 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-518165 AF680) or Alexa Fluor® 790 (sc-518165 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

Acid Ceramidase (F-9) is recommended for detection of Acid Ceramidase β of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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 Acid Ceramidase siRNA (h): sc-105032, Acid Ceramidase shRNA Plasmid (h): sc-105032-SH and Acid Ceramidase shRNA (h) Lentiviral Particles: sc-105032-V.

Molecular Weight of Acid Ceramidase α subunit: 13 kDa.

Molecular Weight of Acid Ceramidase β subunit: 40 kDa.

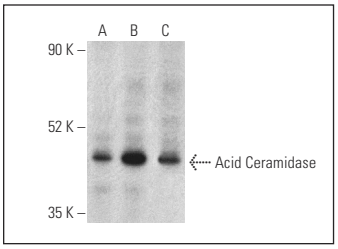
Molecular Weight of Acid Ceramidase precursor: 53 kDa.

Positive Controls: SK-MEL-28 cell lysate: sc-2236, HEL 92.1.7 cell lysate: sc-2270 or T-47D cell lysate: sc-2293.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein L-Agarose: sc-2336 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



Acid Ceramidase (F-9): sc-518165. Western blot analysis of Acid Ceramidase expression in SK-MEL-28 (**A**), HEL 92.1.7 (**B**) and T-47D (**C**) whole cell lysates. Detection reagent used: m-IgGκ BP-HRP: sc-516102.

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.