

Acid Ceramidase (H-41): sc-292176

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. Affected 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 5 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 optimum pH is 4.5, whereas the reverse reaction favors a pH of 5.5, further supporting a complex and central role for Acid Ceramidase in sphingolipid metabolism.

CHROMOSOMAL LOCATION

Genetic locus: ASAH1 (human) mapping to 8p22; Asah1 (mouse) mapping to 8 A4.

SOURCE

Acid Ceramidase (H-41) is a rabbit polyclonal antibody raised against amino acids 25-65 mapping near the N-terminus of Acid Ceramidase 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.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

Acid Ceramidase (H-41) is recommended for detection of Acid Ceramidase of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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).

Acid Ceramidase (H-41) is also recommended for detection of Acid Ceramidase in additional species, including bovine and porcine.

Suitable for use as control antibody for Acid Ceramidase siRNA (h): sc-105032, Acid Ceramidase siRNA (m): sc-140807, Acid Ceramidase shRNA Plasmid (h): sc-105032-SH, Acid Ceramidase shRNA Plasmid (m): sc-140807-SH, Acid Ceramidase shRNA (h) Lentiviral Particles: sc-105032-V and Acid Ceramidase shRNA (m) Lentiviral Particles: sc-140807-V.

Molecular Weight of precursor Acid Ceramidase: 53 kDa.

Molecular Weight of Acid Ceramidase α subunit: 13 kDa.

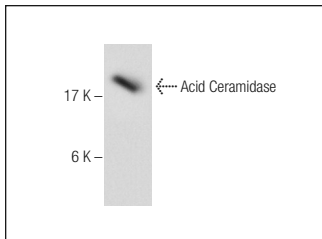
Molecular Weight of Acid Ceramidase β subunit: 40 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Acid Ceramidase (H-41): sc-292176. Western blot analysis of Acid Ceramidase expression in HeLa whole cell lysate.

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.

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Try **Acid Ceramidase (23): sc-136275**, our highly recommended monoclonal alternative to Acid Ceramidase (H-41).