

Chitotriosidase (C-17): sc-46854

BACKGROUND

Chitinases are ubiquitous chitin-fragmenting hydrolases. The chitinase Chitotriosidase is capable of cleaving natural chitin and chitin-like substrates in humans and may play a role in immunity against pathogens containing chitin. Activated human macrophages secrete chitotriosidase and increased plasma levels of chitotriosidase are a feature of patients suffering from Gaucher disease. Expression of mouse Chitotriosidase is restricted to brain, skin, bone marrow, kidney, tongue, stomach and testis. The homology between Chitotriosidase and chitinases found in lower organisms is significant. Acidic mammalian chitinase precursor (AMCase) degrades chitotriose and chitin. AMCase is highly expressed in stomach tissues and is primarily a secreted protein. It is involved in Th2-mediated inflammation and may play a role in asthma and allergic diseases.

CHROMOSOMAL LOCATION

Genetic locus: CHIT1 (human) mapping to 1q32.1; Chit1 (mouse) mapping to 1 E4.

SOURCE

Chitotriosidase (C-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Chitotriosidase 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-46854 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

Chitotriosidase (C-17) is recommended for detection of Chitotriosidase of human and, to a lesser extent, mouse 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).

Suitable for use as control antibody for Chitotriosidase siRNA (h): sc-60365, Chitotriosidase siRNA (m): sc-60366, Chitotriosidase shRNA Plasmid (h): sc-60365-SH, Chitotriosidase shRNA Plasmid (m): sc-60366-SH, Chitotriosidase shRNA (h) Lentiviral Particles: sc-60365-V and Chitotriosidase shRNA (m) Lentiviral Particles: sc-60366-V.

Molecular Weight of Chitotriosidase precursor: 50 kDa.

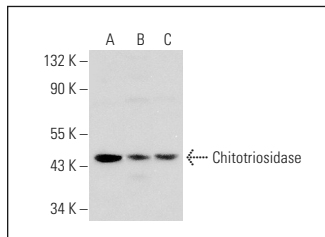
Molecular Weight of Chitotriosidase processed form: 39 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, HeLa whole cell lysate: sc-2200 or U-251-MG whole cell lysate: sc-364176.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



Chitotriosidase (C-17): sc-46854. Western blot analysis of Chitotriosidase expression in Hep G2 (A), HeLa (B) and U-251-MG (C) whole cell lysates.

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.



Try **Chitotriosidase (A-11): sc-271460** or **Chitotriosidase (A-3): sc-271282**, our highly recommended monoclonal alternatives to Chitotriosidase (C-17).