

Chitotriosidase (H-66): sc-99033

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 (H-66) is a rabbit polyclonal antibody raised against amino acids 150-215 mapping within an internal region 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.

STORAGE

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

APPLICATIONS

Chitotriosidase (H-66) is recommended for detection of Chitotriosidase 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).

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.

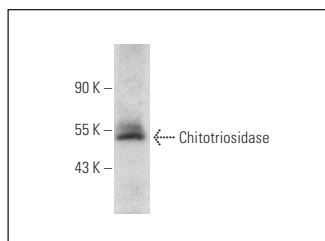
Molecular Weight of Chitotriosidase processed form: 39 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227 or AML-193 whole cell lysate: sc-364182.

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



Chitotriosidase (H-66): sc-99033. Western blot analysis of Chitotriosidase expression in AML-193 whole cell lysate.

SELECT PRODUCT CITATIONS

- Di Rosa, M., et al. 2012. Modulation of chitotriosidase during macrophage differentiation. *Cell Biochem. Biophys.* 66: 239-247.
- Di Rosa, M., et al. 2014. Determination of chitinases family during osteoclastogenesis. *Bone* 61C: 55-63.
- Di Rosa, M., et al. 2016. CHI3L1 nuclear localization in monocyte derived dendritic cells. *Immunobiology.* 221: 347-356.

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 (H-66).