

UGCG (H-300): sc-50511

BACKGROUND

Glucosylceramide synthase (GCS), also designated ceramide glucosyltransferase, belongs to the glycosyltransferase 2 family. It is a widely expressed integral membrane protein encoded by UGCG. The enzyme can be found in the plasma membrane of all eukaryotic cells, and a significant concentration of glucosylceramide synthase activity has been reported in the Golgi complex. Glucosylceramide synthase catalyzes the first glycosylation step in glycosphingolipid biosynthesis and functions as a glucosyltransferase and flippase in the transfer of glucose to ceramide. Glucosylceramide synthase operates in cell recognition, cell proliferation and differentiation, immune recognition and signal transduction. The regulation of ceramide levels through glucosylceramide synthase has been associated with the induction of apoptosis and notable research implicates this relationship with drug-induced apoptosis in a variety of cell types.

CHROMOSOMAL LOCATION

Genetic locus: UGCG (human) mapping to 9q31.3; Ugcg (mouse) mapping to 4 B3.

SOURCE

UGCG (H-300) is a rabbit polyclonal antibody raised against amino acids 1-300 mapping at the N-terminus of glucosylceramide synthase 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

UGCG (H-300) is recommended for detection of glucosylceramide synthase 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

UGCG (H-300) is also recommended for detection of glucosylceramide synthase in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for UGCG siRNA (h): sc-45404, UGCG siRNA (m): sc-45405, UGCG shRNA Plasmid (h): sc-45404-SH, UGCG shRNA Plasmid (m): sc-45405-SH, UGCG shRNA (h) Lentiviral Particles: sc-45404-V and UGCG shRNA (m) Lentiviral Particles: sc-45405-V.

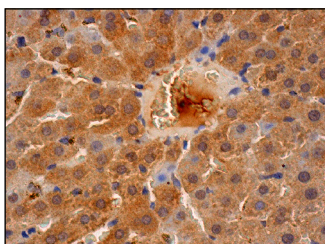
Molecular Weight of UGCG: 38 kDa.

Positive Controls: RAW 264.7 whole cell lysate: sc-2211.

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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



UGCG (H-300): sc-50511. Immunoperoxidase staining of formalin fixed, paraffin-embedded human liver tissue showing cytoplasmic staining of hepatocytes.

SELECT PRODUCT CITATIONS

- Kim, H., et al. 2012. Dietary sericin enhances epidermal levels of glucosylceramides and ceramides with up-regulating protein expressions of glucosylceramide synthase, β-glucocerebrosidase and acidic sphingomyelinase in NC/Nga mice. *Nutr. Res.* 32: 956-964.

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 **UGCG (1E5): sc-293235**, our highly recommended monoclonal alternative to UGCG (H-300).