

UGGT1 (H-9): sc-374565



The Power to Question

BACKGROUND

UDP-glucose glycoprotein glucosyltransferase 1 (UGGT1 or HUGT1), belongs to the glycosyltransferase 8 family of proteins. UGGT1 is involved in glycosylation pathways and induced by tunicamycin and A23187. Its main function is to recognize glycoproteins with folding defects. It reglycosylates single N-glycans near the misfolded area, flagging these proteins for recycling to the endoplasmic reticulum (ER) followed by refolding or degradation. UGGT1, which localizes to the ER and to the ER-Golgi intermediate compartment, is primarily expressed in skeletal muscle, pancreas, brain and kidney tissues.

CHROMOSOMAL LOCATION

Genetic locus: UGGT1 (human) mapping to 2q14.3; Ugg1 (mouse) mapping to 1 B.

SOURCE

UGGT1 (H-9) is a mouse monoclonal antibody raised against amino acids 705-860 mapping within an internal region of UGGT1 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

UGGT1 (H-9) is available conjugated to agarose (sc-374565 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-374565 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-374565 PE), fluorescein (sc-374565 FITC), Alexa Fluor® 488 (sc-374565 AF488), Alexa Fluor® 546 (sc-374565 AF546), Alexa Fluor® 594 (sc-374565 AF594) or Alexa Fluor® 647 (sc-374565 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-374565 AF680) or Alexa Fluor® 790 (sc-374565 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

APPLICATIONS

UGGT1 (H-9) is recommended for detection of UGGT1 of mouse, rat and 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), 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).

Suitable for use as control antibody for UGGT1 siRNA (h): sc-60098, UGGT1 siRNA (m): sc-60096, UGGT1 siRNA (r): sc-60097, UGGT1 shRNA Plasmid (h): sc-60098-SH, UGGT1 shRNA Plasmid (m): sc-60096-SH, UGGT1 shRNA Plasmid (r): sc-60097-SH, UGGT1 shRNA (h) Lentiviral Particles: sc-60098-V, UGGT1 shRNA (m) Lentiviral Particles: sc-60096-V and UGGT1 shRNA (r) Lentiviral Particles: sc-60097-V.

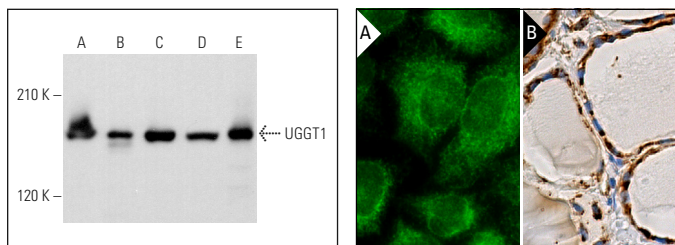
Molecular Weight of UGGT1: 170 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, Hep G2 cell lysate: sc-2227 or MCF7 whole cell lysate: sc-2206.

RECOMMENDED SUPPORT 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 A/G PLUS-Agarose: sc-2003 (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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



UGGT1 (H-9): sc-374565. Western blot analysis of UGGT1 expression in MCF7 (A), Jurkat (B), Hep G2 (C), HL-60 (D) and SH-SY5Y (E) whole cell lysates.

UGGT1 (H-9): sc-374565. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human thyroid gland tissue showing cytoplasmic staining of glandular cells (B).

SELECT PRODUCT CITATIONS

1. Terao, Y., et al. 2017. Interaction of FAM5C with UDP-glucose:glycoprotein glucosyltransferase 1 (UGGT1): Implication of N-glycosylation in FAM5C secretion. *Biochem. Biophys. Res. Commun.* 486: 811-816.
2. Huang, J., et al. 2019. SR-BI interactome analysis reveals a proviral role for UGGT1 in hepatitis C virus entry. *Front. Microbiol.* 10: 2043.
3. Cho, J., et al. 2022. UDP-glucose, cereblon-dependent proinsulin degrader. *Sci. Rep.* 12: 14568.

STORAGE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

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