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UGCG Antibody (N-term) Blocking peptide
Synthetic peptide
Catalog # BP12616a

Specification

UGCG Antibody (N-term) Blocking peptide - Product Information

Primary Accession Q16739

UGCG Antibody (N-term) Blocking peptide - Additional Information

Gene ID 7357

Other Names
Ceramide glucosyltransferase, GLCT-1, Glucosylceramide synthase, GCS, UDP-glucose ceramide glucosyltransferase, UDP-glucose:N-acylsphingosine D-glucosyltransferase, UGCG

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

UGCG Antibody (N-term) Blocking peptide - Protein Information

Name UGCG (HGNC:12524)

Function
Participates in the initial step of the glucosylceramide- based glycosphingolipid/GSL synthetic pathway at the cytosolic surface of the Golgi (PubMed:8643456, PubMed:1532799). Catalyzes the transfer of glucose from UDP-glucose to ceramide to produce glucosylceramide/GlcCer (such as beta-D-glucosyl-(1<->1')-N-acylsphing- 4-enine) (PubMed:1532799, PubMed:8643456). GlcCer is the core component of glycosphingolipids/GSLs, amphipathic molecules consisting of a ceramide lipid moiety embedded in the outer leaflet of the membrane, linked to one of hundreds of different externally oriented oligosaccharide structures (PubMed:8643456). Glycosphingolipids are essential components of membrane microdomains that mediate membrane trafficking and signal transduction, implicated in many fundamental cellular processes, including growth, differentiation, migration, morphogenesis, cell-to-cell and cell-to-matrix interactions (By similarity). They are required for instance in the proper development and functioning of the nervous system (By similarity). As an example of their role in signal transduction, they regulate

the leptin receptor/LEPR in the leptin-mediated signaling pathway (By similarity). They also play an important role in the establishment of the skin barrier regulating keratinocyte differentiation and the proper assembly of the cornified envelope (By similarity). The biosynthesis of GSLs is also required for the proper intestinal endocytic uptake of nutritional lipids (By similarity). Catalyzes the synthesis of xylosylceramide/XylCer (such as beta-D-xylosyl-(1<->1')-N-acylsphing-4- enine) using UDP-Xyl as xylose donor (PubMed:33361282).

Cellular Location
Golgi apparatus membrane; Multi-pass membrane protein {ECO:0000250|UniProtKB:Q9R0E0}

Tissue Location
Found in all tissues examined.

UGCG Antibody (N-term) Blocking peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

UGCG Antibody (N-term) Blocking peptide - Images

UGCG Antibody (N-term) Blocking peptide - Background

Glycosphingolipids (GSLs) are a group of membranecomponents that contain lipid and sugar moieties. They are presentin essentially all animal cells and are believed to have importantroles in various cellular processes. UDP-glucose ceramideglucosyltransferase catalyzes the first glycosylation step inglycosphingolipid biosynthesis. The product, glucosylceramide, isthe core structure of more than 300 GSLs. UGCG is widely expressedand transcription is upregulated during keratinocytedifferentiation.

UGCG Antibody (N-term) Blocking peptide - References

Yang, G.Q., et al. Zhonghua Yi Xue Yi Chuan Xue Za Zhi 27(3):299-304(2010)Ruckhaberle, E., et al. J. Cancer Res. Clin. Oncol. 135(1):81-90(2009)Xie, P., et al. Leuk. Res. 32(3):475-480(2008)Marks, N., et al. Brain Res. 1191, 136-147 (2008) :Fazi, B., et al. Biochem. Biophys. Res. Commun. 342(3):881-886(2006)