

**UGCG Antibody**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP51983****Specification**

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**UGCG Antibody - Product Information**

Application	WB, E
Primary Accession	<a href="#">Q16739</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	45 KDa

**UGCG Antibody - 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

**Dilution**

WB~~1:1000

E~~N/A

**Format**

0.01M PBS, pH 7.2, 0.09% (W/V) Sodium azide, Glycerol 50%

**Storage**

Store at -20 °C.Stable for 12 months from date of receipt

**UGCG Antibody - 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:<a href="http://www.uniprot.org/citations/1532799" target="\_blank">1532799</a>, PubMed:<a href="http://www.uniprot.org/citations/8643456" target="\_blank">8643456</a>). 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:<a href="http://www.uniprot.org/citations/1532799" target="\_blank">1532799</a>, PubMed:<a href="http://www.uniprot.org/citations/8643456" target="\_blank">8643456</a>). 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:<a href="http://www.uniprot.org/citations/8643456" target="\_blank">8643456</a>).

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:<a href="http://www.uniprot.org/citations/33361282" target="\_blank">33361282</a>).

**Cellular Location**

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

**Tissue Location**

Found in all tissues examined.

**UGCG Antibody - Protocols**

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**UGCG Antibody - Images****UGCG Antibody - Background**

Catalyzes the first glycosylation step in glycosphingolipid biosynthesis, the transfer of glucose to ceramide. May also serve as a "flippase".

**UGCG Antibody - References**

Ichikawa S.,et al.Proc. Natl. Acad. Sci. U.S.A. 93:4638-4643(1996).  
Ichikawa S.,et al.Proc. Natl. Acad. Sci. U.S.A. 93:12654-12654(1996).  
Ota T.,et al.Nat. Genet. 36:40-45(2004).  
Humphray S.J.,et al.Nature 429:369-374(2004).  
Mural R.J.,et al.Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases.