

Recombinant Mouse Ugcg Protein, Myc/DDK-tagged

Cat. No. Ugcg-6826M Lot. No. (See product label)

SPECIFICATION

Product Overview Purified recombinant protein of mouse full-length UDP-glucose ceramide glucosyltransferase (Ugcg), with C-terminal MYC/DDK tag, expressed in HEK293T cells.

Species Mouse

Source HEK293

Description

Catalyzes at the cytosolic surface of the Golgi, the initial step of the glucosylceramide-based glycosphingolipid/GSL synthetic pathway, the transfer of glucose from UDP-glucose to ceramide to produce glucosylceramide/GlcCer. Glucosylceramide 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. Glycosphingolipids are essential components of membrane microdomains that mediate membrane trafficking and signal transduction. They are implicated in many fundamental cellular processes, including growth, differentiation, migration, morphogenesis, cell-to-cell and cell-to-matrix interactions. They are required for instance in the proper development and functioning of the nervous system. As an example of their role in signal transduction, they regulate the leptin receptor/LEPR in the leptin-mediated signaling pathway. They also play an important role in the establishment of the skin barrier regulating keratinocyte differentiation and the proper assembly of the cornified envelope. The biosynthesis of GSLs is also required for the proper intestinal endocytic uptake of nutritional lipids.

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Molecular Mass	45.3 kDa
Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining
Stability	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
Storage	Store at -80 centigrade after receiving vials.
Concentration	>50 µg/mL as determined by microplate BCA method
Storage Buffer	25 mM Tris.HCl, pH 7.3, 100 mM glycine, 10% glycerol.

GENE INFORMATION

Gene Name	Ugcg UDP-glucose ceramide glucosyltransferase [Mus musculus (house mouse)]
Official Symbol	Ugcg
Synonyms	UGCG; UDP-glucose ceramide glucosyltransferase; ceramide glucosyltransferase; GCS; glucosylceramide synthase; UDP-glucose:N-acylsphingosine D-glucosyltransferase; ectoplacental cone, invasive trophoblast giant cells, extraembryonic ectoderm and chorion sequence 21; Ugcgl; C80537; Epcs21; GlcT-1; AU043821
Gene ID	22234
mRNA Refseq	NM_011673
Protein Refseq	NP_035803

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UniProt ID

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