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UGCG Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP51983

Product Information

Application	WB
Primary Accession	Q16739
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	44854

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
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the N-term region of human UGCG. The exact sequence is proprietary.
Dilution	WB~~1:1000
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

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:1532799, PubMed:8643456). Catalyzes the transfer of glucose from UDP-glucose to ceramide to produce glucosylceramide/GlcCer (such as beta-D-glucosyl-(11')-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-(11')-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.

Background

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

References

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