

## Product datasheet for **TL514661**

### Ugcg Mouse shRNA Plasmid (Locus ID 22234)

#### Product data:

Product Type:	shRNA Plasmids
Product Name:	Ugcg Mouse shRNA Plasmid (Locus ID 22234)
Locus ID:	22234
Synonyms:	AU043821; C80537; Epcs21; GlcT-1; Ugcgl
Vector:	pGFP-C-shLenti (TR30023)
E. coli Selection:	Chloramphenicol (34 ug/ml)
Mammalian Cell Selection:	Puromycin
Format:	Lentiviral plasmids
Components:	Ugcg - Mouse, 4 unique 29mer shRNA constructs in lentiviral GFP vector(Gene ID = 22234). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pGFP-C-shLenti Vector, TR30021, included for free.
RefSeq:	<a href="#">BC050828</a> , <a href="#">NM_011673</a> , <a href="#">NM_011673.1</a> , <a href="#">NM_011673.2</a> , <a href="#">NM_011673.3</a>
UniProt ID:	<a href="#">O88693</a>



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<b>Summary:</b>	<p>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 (PubMed:10430909, PubMed:16109770, PubMed:28373486). 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 (PubMed:10430909). Glycosphingolipids are essential components of membrane microdomains that mediate membrane trafficking and signal transduction (PubMed:10430909). They are implicated in many fundamental cellular processes, including growth, differentiation, migration, morphogenesis, cell-to-cell and cell-to-matrix interactions (PubMed:10430909). They are required for instance in the proper development and functioning of the nervous system (PubMed:16109770). As an example of their role in signal transduction, they regulate the leptin receptor/LEPR in the leptin-mediated signaling pathway (PubMed:23554574). They also play an important role in the establishment of the skin barrier regulating keratinocyte differentiation and the proper assembly of the cornified envelope (PubMed:17145749, PubMed:23748427). The biosynthesis of GSLs is also required for the proper intestinal endocytic uptake of nutritional lipids (PubMed:22851168).[UniProtKB/Swiss-Prot Function]</p>
<b>shRNA Design:</b>	<p>These shRNA constructs were designed against multiple splice variants at this gene locus. To be certain that your variant of interest is targeted, please contact <a href="mailto:techsupport@origene.com">techsupport@origene.com</a>. If you need a special design or shRNA sequence, please utilize our <a href="#">custom shRNA service</a>.</p>
<b>Performance Guaranteed:</b>	<p>OriGene guarantees that the sequences in the shRNA expression cassettes are verified to correspond to the target gene with 100% identity. One of the four constructs at minimum are guaranteed to produce 70% or more gene expression knock-down provided a minimum transfection efficiency of 80% is achieved. Western Blot data is recommended over qPCR to evaluate the silencing effect of the shRNA constructs 72 hrs post transfection. To properly assess knockdown, the gene expression level from the included scramble control vector must be used in comparison with the target-specific shRNA transfected samples.</p> <p>For non-conforming shRNA, requests for replacement product must be made within ninety (90) days from the date of delivery of the shRNA kit. To arrange for a free replacement with newly designed constructs, please contact Technical Services at <a href="mailto:techsupport@origene.com">techsupport@origene.com</a>. Please provide your data indicating the transfection efficiency and measurement of gene expression knockdown compared to the scrambled shRNA control (Western Blot data preferred).</p>