

## Product datasheet for **TL308767**

### **TMEM24 (C2CD2L) Human shRNA Plasmid Kit (Locus ID 9854)**

#### **Product data:**

<b>Product Type:</b>	shRNA Plasmids
<b>Product Name:</b>	TMEM24 (C2CD2L) Human shRNA Plasmid Kit (Locus ID 9854)
<b>Locus ID:</b>	9854
<b>Synonyms:</b>	DLNB23; TMEM24
<b>Vector:</b>	pGFP-C-shLenti (TR30023)
<b>E. coli Selection:</b>	Chloramphenicol (34 ug/ml)
<b>Mammalian Cell Selection:</b>	Puromycin
<b>Format:</b>	Lentiviral plasmids
<b>Components:</b>	C2CD2L - Human, 4 unique 29mer shRNA constructs in lentiviral GFP vector(Gene ID = 9854). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pGFP-C-shLenti Vector, TR30021, included for free.
<b>RefSeq:</b>	<a href="#">NM_001290474</a> , <a href="#">NM_014807</a> , <a href="#">NM_014807.1</a> , <a href="#">NM_014807.2</a> , <a href="#">NM_014807.3</a> , <a href="#">NM_014807.4</a> , <a href="#">NM_001290474.1</a> , <a href="#">BC022219</a> , <a href="#">BC022219.1</a> , <a href="#">BC003598</a> , <a href="#">BC010071</a> , <a href="#">BC021254</a> , <a href="#">BC033083</a> , <a href="#">BC040131</a> , <a href="#">BC052246</a> , <a href="#">BC075832</a> , <a href="#">NM_001290474.2</a>
<b>UniProt ID:</b>	<a href="#">O14523</a>
<b>Summary:</b>	Lipid-binding protein that transports phosphatidylinositol, the precursor of phosphatidylinositol 4,5-bisphosphate (PI(4,5)P2), from its site of synthesis in the endoplasmic reticulum to the cell membrane (PubMed:28209843). It thereby maintains the pool of cell membrane phosphoinositides, which are degraded during phospholipase C (PLC) signaling (PubMed:28209843). Plays a key role in the coordination of Ca(2+) and phosphoinositide signaling: localizes to sites of contact between the endoplasmic reticulum and the cell membrane, where it tethers the two bilayers (PubMed:28209843). In response to elevation of cytosolic Ca(2+), it is phosphorylated at its C-terminus and dissociates from the cell membrane, abolishing phosphatidylinositol transport to the cell membrane (PubMed:28209843). Positively regulates insulin secretion in response to glucose: phosphatidylinositol transfer to the cell membrane allows replenishment of PI(4,5)P2 pools and calcium channel opening, priming a new population of insulin granules (PubMed:28209843).[UniProtKB/Swiss-Prot Function]



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**shRNA Design:**

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 [techsupport@origene.com](mailto:techsupport@origene.com). If you need a special design or shRNA sequence, please utilize our [custom shRNA service](#).

**Performance Guaranteed:**

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.

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 [techsupport@origene.com](mailto:techsupport@origene.com). Please provide your data indicating the transfection efficiency and measurement of gene expression knockdown compared to the scrambled shRNA control (Western Blot data preferred).