

## Product datasheet for **TL312599**

### Metabotropic Glutamate Receptor 4 (GRM4) Human shRNA Plasmid Kit (Locus ID 2914)

#### Product data:

Product Type:	shRNA Plasmids
Product Name:	Metabotropic Glutamate Receptor 4 (GRM4) Human shRNA Plasmid Kit (Locus ID 2914)
Locus ID:	2914
Synonyms:	GPRC1D; mGlu4; MGLUR4
Vector:	pGFP-C-shLenti (TR30023)
E. coli Selection:	Chloramphenicol (34 ug/ml)
Mammalian Cell Selection:	Puromycin
Format:	Lentiviral plasmids
Components:	GRM4 - Human, 4 unique 29mer shRNA constructs in lentiviral GFP vector(Gene ID = 2914). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pGFP-C-shLenti Vector, TR30021, included for free.
RefSeq:	<a href="#">NM_000841</a> , <a href="#">NM_001256809</a> , <a href="#">NM_001256810</a> , <a href="#">NM_001256811</a> , <a href="#">NM_001256812</a> , <a href="#">NM_001256813</a> , <a href="#">NM_001256814</a> , <a href="#">NM_001282847</a> , <a href="#">NR_046379</a> , <a href="#">NM_000841.1</a> , <a href="#">NM_000841.2</a> , <a href="#">NM_000841.3</a> , <a href="#">NM_001256810.1</a> , <a href="#">NM_001256812.1</a> , <a href="#">NM_001256812.2</a> , <a href="#">NM_001256814.1</a> , <a href="#">NM_001256813.1</a> , <a href="#">NM_001256813.2</a> , <a href="#">NM_001256809.1</a> , <a href="#">NM_001256809.2</a> , <a href="#">NM_001256811.1</a> , <a href="#">NM_001256811.2</a> , <a href="#">NM_001282847.1</a> , <a href="#">BC130526</a> , <a href="#">BC130528</a> , <a href="#">BC144057</a> , <a href="#">BM683737</a> , <a href="#">NM_001256813.3</a> , <a href="#">NM_001282847.2</a> , <a href="#">NM_000841.4</a>
UniProt ID:	<a href="#">Q14833</a>
Summary:	L-glutamate is the major excitatory neurotransmitter in the central nervous system and activates both ionotropic and metabotropic glutamate receptors. Glutamatergic neurotransmission is involved in most aspects of normal brain function and can be perturbed in many neuropathologic conditions. The metabotropic glutamate receptors are a family of G protein-coupled receptors, that have been divided into 3 groups on the basis of sequence homology, putative signal transduction mechanisms, and pharmacologic properties. Group I includes GRM1 and GRM5 and these receptors have been shown to activate phospholipase C. Group II includes GRM2 and GRM3 while Group III includes GRM4, GRM6, GRM7 and GRM8. Group II and III receptors are linked to the inhibition of the cyclic AMP cascade but differ in their agonist selectivities. Several transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Feb 2012]



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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).