

Product datasheet for **TR312602**

Metabotropic Glutamate Receptor 1 (GRM1) Human shRNA Plasmid Kit (Locus ID 2911)

Product data:

Product Type:	shRNA Plasmids
Product Name:	Metabotropic Glutamate Receptor 1 (GRM1) Human shRNA Plasmid Kit (Locus ID 2911)
Locus ID:	2911
Synonyms:	GPRC1A; GRM1A; mGlu1; MGLUR1; MGLUR1A; SCAR13
Vector:	pRS (TR20003)
E. coli Selection:	Ampicillin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	GRM1 - Human, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 2911). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.
RefSeq:	NM_000838 , NM_001114329 , NM_001278064 , NM_001278065 , NM_001278066 , NM_001278067 , NM_000838.1 , NM_000838.2 , NM_000838.3 , NM_001114329.1 , NM_001278065.1 , NM_001278066.1 , NM_001278067.1 , NM_001278064.1 , BC111844 , BC136280 , BC143777 , BC143779 , NM_001278065.2 , NM_001278064.2
UniProt ID:	Q13255
Summary:	This gene encodes a metabotropic glutamate receptor that functions by activating phospholipase C. 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 canonical alpha isoform of the encoded protein is a disulfide-linked homodimer whose activity is mediated by a G-protein-coupled phosphatidylinositol-calcium second messenger system. This gene may be associated with many disease states, including schizophrenia, bipolar disorder, depression, and breast cancer. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, May 2013]
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 . If you need a special design or shRNA sequence, please utilize our custom shRNA service .



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**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. Please provide your data indicating the transfection efficiency and measurement of gene expression knockdown compared to the scrambled shRNA control (Western Blot data preferred).