

Product datasheet for **TR312610**

NMDAR2A (GRIN2A) Human shRNA Plasmid Kit (Locus ID 2903)

Product data:

Product Type:	shRNA Plasmids
Product Name:	NMDAR2A (GRIN2A) Human shRNA Plasmid Kit (Locus ID 2903)
Locus ID:	2903
Synonyms:	EPND; FESD; GluN2A; LKS; NMDAR2A; NR2A
Vector:	pRS (TR20003)
E. coli Selection:	Ampicillin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	GRIN2A - Human, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 2903). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.
RefSeq:	NM_000833 , NM_001134407 , NM_001134408 , NM_000833.1 , NM_000833.2 , NM_000833.3 , NM_000833.4 , NM_001134408.1 , NM_001134408.2 , NM_001134407.1 , NM_001134407.2 , BC117131 , BC143273 , NM_001134407.3 , NM_000833.5
UniProt ID:	Q12879
Summary:	This gene encodes a member of the glutamate-gated ion channel protein family. The encoded protein is an N-methyl-D-aspartate (NMDA) receptor subunit. NMDA receptors are both ligand-gated and voltage-dependent, and are involved in long-term potentiation, an activity-dependent increase in the efficiency of synaptic transmission thought to underlie certain kinds of memory and learning. These receptors are permeable to calcium ions, and activation results in a calcium influx into post-synaptic cells, which results in the activation of several signaling cascades. Disruption of this gene is associated with focal epilepsy and speech disorder with or without cognitive disability. Alternative splicing results in multiple transcript variants. [provided by RefSeq, May 2014]
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).