

Product datasheet for **TL510291**

Mark4 Mouse shRNA Plasmid (Locus ID 232944)

Product data:

Product Type:	shRNA Plasmids
Product Name:	Mark4 Mouse shRNA Plasmid (Locus ID 232944)
Locus ID:	232944
Synonyms:	2410090P21Rik; C79806; Markl1
Vector:	pGFP-C-shLenti (TR30023)
E. coli Selection:	Chloramphenicol (34 ug/ml)
Mammalian Cell Selection:	Puromycin
Format:	Lentiviral plasmids
Components:	Mark4 - Mouse, 4 unique 29mer shRNA constructs in lentiviral GFP vector(Gene ID = 232944). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pGFP-C-shLenti Vector, TR30021, included for free.
RefSeq:	NM_172279 , NM_172279.1 , BC156720 , NM_001368427 , NM_172279.2
UniProt ID:	Q8CIP4
Summary:	Serine/threonine-protein kinase (By similarity). Phosphorylates the microtubule-associated protein MAPT/TAU (By similarity). Also phosphorylates the microtubule-associated proteins MAP2 and MAP4 (By similarity). Involved in regulation of the microtubule network, causing reorganization of microtubules into bundles (By similarity). Required for the initiation of axoneme extension during cilium assembly (By similarity). Regulates the centrosomal location of ODF2 and phosphorylates ODF2 in vitro (By similarity). Plays a role in cell cycle progression, specifically in the G1/S checkpoint (By similarity). Reduces neuronal cell survival (By similarity). Plays a role in energy homeostasis by regulating satiety and metabolic rate (PubMed:22992738). Promotes adipogenesis by activating JNK1 and inhibiting the p38MAPK pathway, and triggers apoptosis by activating the JNK1 pathway (PubMed:24989893). Phosphorylates mTORC1 complex member RPTOR and acts as a negative regulator of the mTORC1 complex, probably due to disruption of the interaction between phosphorylated RPTOR and the RAGA/RRAGC heterodimer which is required for mTORC1 activation (By similarity).[UniProtKB/Swiss-Prot Function]



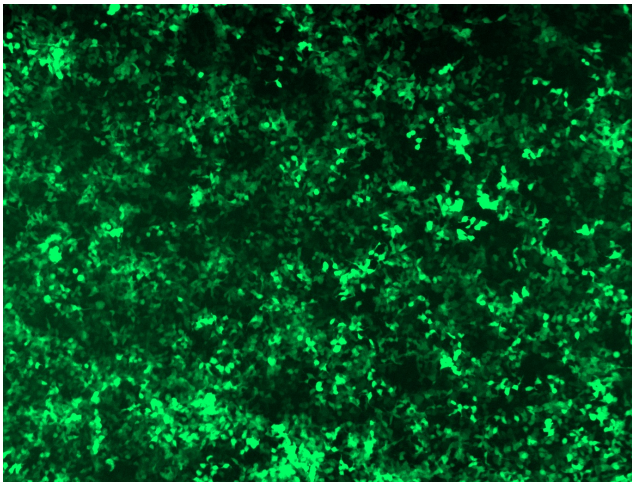
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shRNA Design: These shRNA constructs were designed against multiple splice variants at this gene locus. To be certain that your variant of interest is targeted, please contact techsupport@origene.com. If you need a special design or shRNA sequence, please utilize our [custom shRNA service](#).

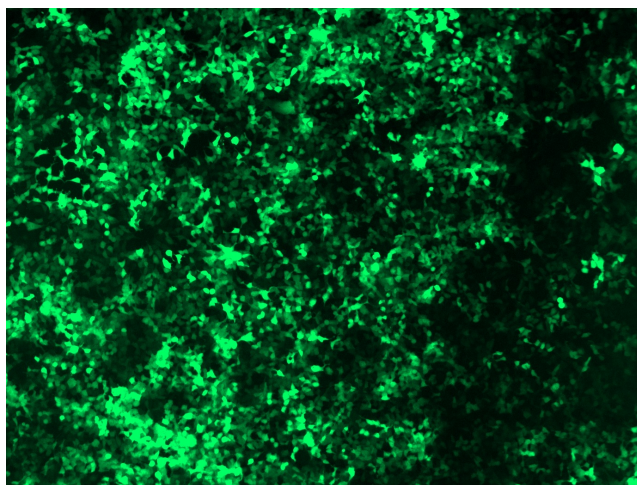
Performance Guaranteed: OriGene guarantees that the sequences in the shRNA expression cassettes are verified to correspond to the target gene with 100% identity. One of the four constructs at minimum are guaranteed to produce 70% or more gene expression knock-down provided a minimum transfection efficiency 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. Please provide your data indicating the transfection efficiency and measurement of gene expression knockdown compared to the scrambled shRNA control (Western Blot data preferred).

Product images:



GFP signal was observed under microscope at 48 hours after transduction of TL510291B virus into HEK293 cells. TL510291B virus was prepared using lenti-shRNA TL510291B and [TR30037] packaging kit.



GFP signal was observed under microscope at 48 hours after transduction of [TL510291C] virus into HEK293 cells. [TL510291C] virus was prepared using lenti-shRNA [TL510291C] and [TR30037] packaging kit.