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Product datasheet for TL517837V

Lrp2 Mouse shRNA Lentiviral Particle (Locus ID 14725)

Product data:

Product Type:	shRNA Lentiviral Particles
Product Name:	Lrp2 Mouse shRNA Lentiviral Particle (Locus ID 14725)
Locus ID:	14725
Synonyms:	AI315343; AW536255; b2b1625.2Clo; D230004K18Rik; Gp330; Megalin
Vector:	pGFP-C-shLenti (TR30023)
Format:	Lentiviral particles
Components:	Lrp2 - Mouse shRNA lentiviral particles (4 unique 29mer target-specific shRNA, 1 scramble control), 0.5 ml each, >10^7 TU/ml.
RefSeq:	NM_001081088, BC040788

View online »

Summary:

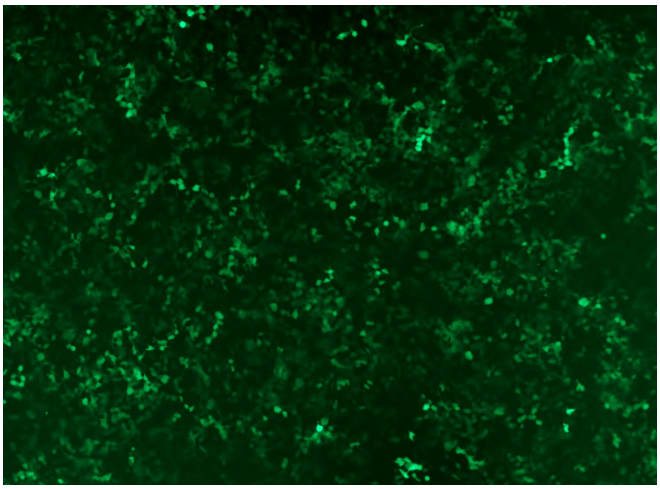
Multiligand endocytic receptor. Acts together with CUBN to mediate endocytosis of high-density lipoproteins (PubMed:10766831). Mediates receptor-mediated uptake of polybasic drugs such as aprotinin, aminoglycosides and polymyxin B (By similarity). In the kidney, mediates the tubular uptake and clearance of leptin (PubMed:22841573). Also mediates transport of leptin across the blood-brain barrier through endocytosis at the choroid plexus epithelium (By similarity). Endocytosis of leptin in neuronal cells is required for hypothalamic leptin signaling and leptin-mediated regulation of feeding and body weight (PubMed:24825475). Mediates endocytosis and subsequent lysosomal degradation of CST3 in kidney proximal tubule cells (PubMed:17462596). Mediates renal uptake of 25-hydroxyvitamin D3 in complex with the vitamin D3 transporter GC/DBP (PubMed:10052453). Mediates renal uptake of metallothionein-bound heavy metals (By similarity). Together with CUBN, mediates renal reabsorption of myoglobin (By similarity). Mediates renal uptake and subsequent lysosomal degradation of APOM (By similarity). Plays a role in kidney selenium homeostasis by mediating renal endocytosis of selenoprotein SEPP1 (PubMed:18174160). Mediates renal uptake of the antiapoptotic protein BIRC5/survivin which may be important for functional integrity of the kidney (PubMed:23825075). Mediates renal uptake of matrix metalloproteinase MMP2 in complex with metalloproteinase inhibitor TIMP1 (PubMed:28659595). Mediates endocytosis of Sonic hedgehog protein N-product (ShhN), the active product of SHH (By similarity). Also mediates ShhN transcytosis (By similarity). In the embryonic neuroepithelium, mediates endocytic uptake and degradation of BMP4, is required for correct SHH localization in the ventral neural tube and plays a role in patterning of the ventral telencephalon (PubMed:15623804). Required at the onset of neurulation to sequester SHH on the apical surface of neuroepithelial cells of the rostral diencephalon ventral midline and to control PTCH1-dependent uptake and intracellular trafficking of SHH (PubMed:22340494). During neurulation, required in neuroepithelial cells for uptake of folate bound to the folate receptor FOLR1 which is necessary for neural tube closure (PubMed:24639464). In the adult brain, negatively regulates BMP signaling in the subependymal zone which enables neurogenesis to proceed (PubMed:20460439). In astrocytes, mediates endocytosis of ALB which is required for the synthesis of the neurotrophic factor oleic acid (By similarity). Involved in neurite branching (PubMed:20637285). During optic nerve development, required for SHH-mediated migration and proliferation of oligodendrocyte precursor cells (PubMed:22354480). Mediates endocytic uptake and clearance of SHH in the retinal margin which protects retinal progenitor cells from mitogenic stimuli and keeps them quiescent (PubMed:26439398). Plays a role in reproductive organ development by mediating uptake in reproductive tissues of androgen and estrogen bound to the sex hormone binding protein SHBG (PubMed:16143106). Mediates endocytosis of angiotensin-2 (By similarity). Also mediates endocytosis of angiotensin 1-7 (By similarity). Binds to the complex composed of beta-amyloid protein 40 and CLU/APOJ and mediates its endocytosis and lysosomal degradation (By similarity). Required for embryonic heart development (PubMed:26822476). Required for normal hearing, possibly through interaction with estrogen in the inner ear (PubMed:17846082). [UniProtKB/Swiss-Prot Function]

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.

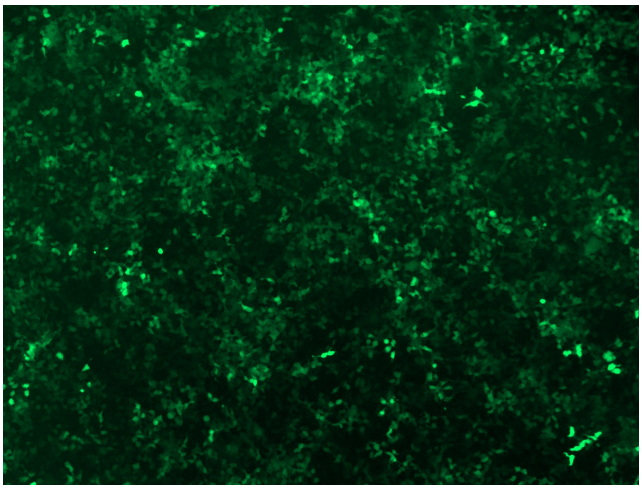
Performance Guaranteed: OriGene guarantees that the sequences in the shRNA expression cassettes are verified to correspond to the target gene with 100% identity. One of the four constructs at minimum are guaranteed to produce 70% or more gene expression knock-down provided a minimum transfection efficiency 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).

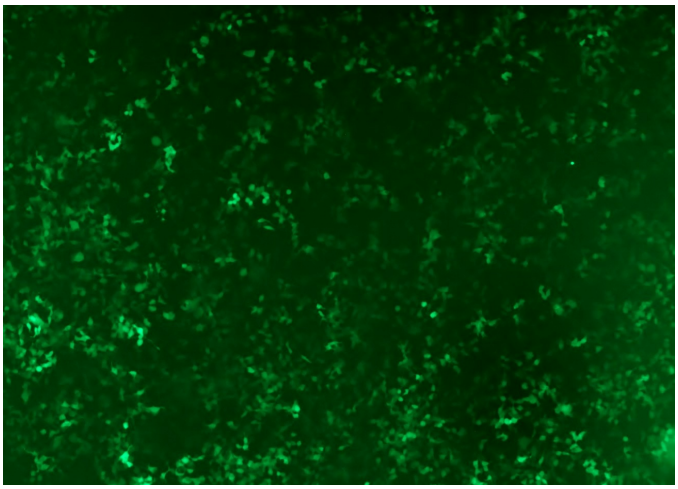
Product images:



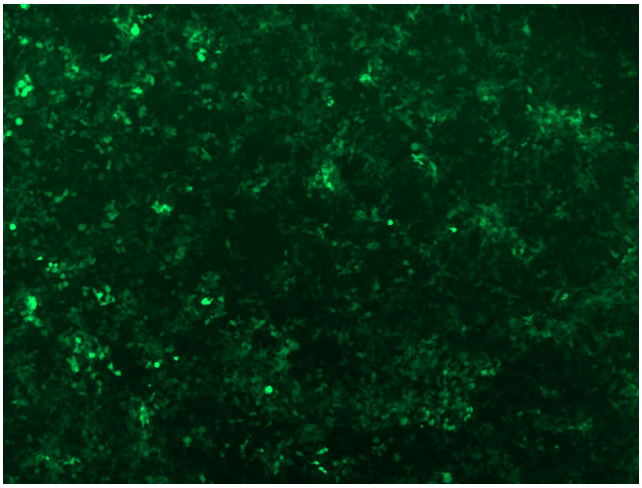
GFP signal was observed under microscope at 48 hours after transduction of TL517837A virus into HEK293 cells. TL517837A virus was prepared using lenti-shRNA TL517837A and [TR30037] packaging kit.



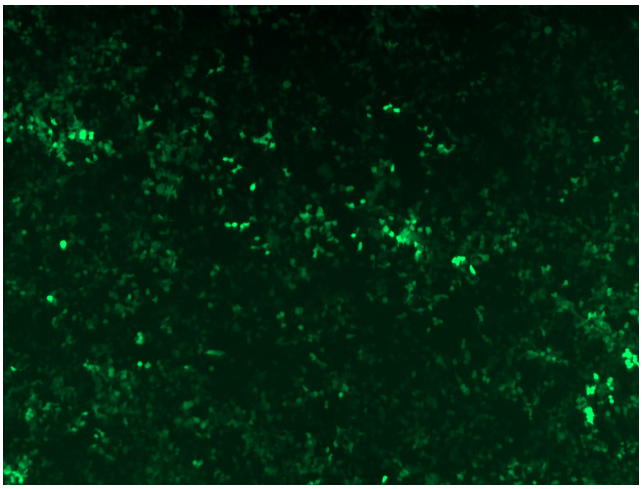
GFP signal was observed under microscope at 48 hours after transduction of TL517837A virus into HEK293 cells. TL517837A virus was prepared using lenti-shRNA TL517837A and [TR30037] packaging kit.



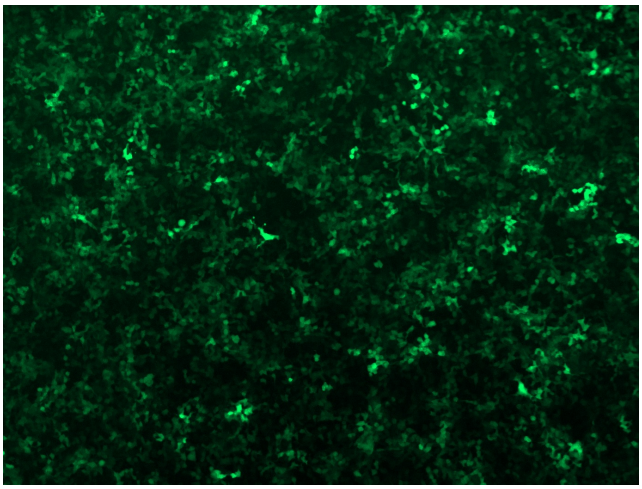
GFP signal was observed under microscope at 48 hours after transduction of TL517837B virus into HEK293 cells. TL517837B virus was prepared using lenti-shRNA TL517837B and [TR30037] packaging kit.



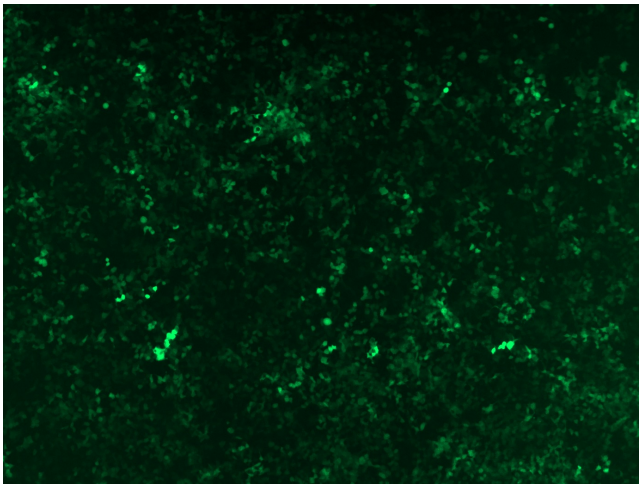
GFP signal was observed under microscope at 48 hours after transduction of TL517837B virus into HEK293 cells. TL517837B virus was prepared using lenti-shRNA TL517837B and [TR30037] packaging kit.



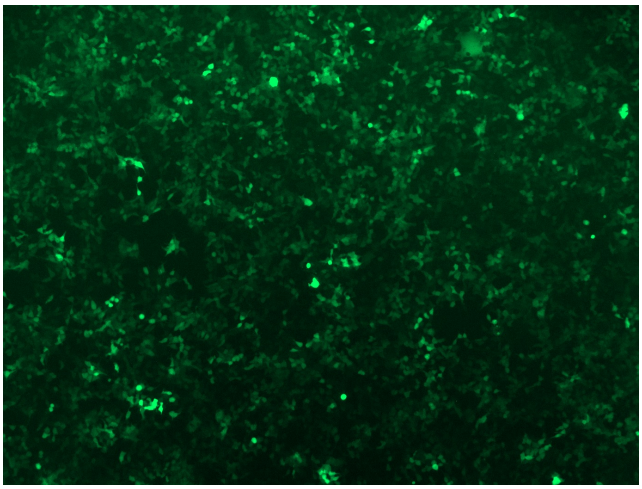
GFP signal was observed under microscope at 48 hours after transduction of [TL517837C] virus into HEK293 cells. [TL517837C] virus was prepared using lenti-shRNA [TL517837C] and [TR30037] packaging kit.



GFP signal was observed under microscope at 48 hours after transduction of [TL517837C] virus into HEK293 cells. [TL517837C] virus was prepared using lenti-shRNA [TL517837C] and [TR30037] packaging kit.



GFP signal was observed under microscope at 48 hours after transduction of [TL517837D] virus into HEK293 cells. [TL517837D] virus was prepared using lenti-shRNA [TL517837D] and [TR30037] packaging kit.



GFP signal was observed under microscope at 48 hours after transduction of [TL517837D] virus into HEK293 cells. [TL517837D] virus was prepared using lenti-shRNA [TL517837D] and [TR30037] packaging kit.