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Product datasheet for TL309279V

SLC7A5 Human shRNA Lentiviral Particle (Locus ID 8140)

Product data:

Product Type:	shRNA Lentiviral Particles
Product Name:	SLC7A5 Human shRNA Lentiviral Particle (Locus ID 8140)
Locus ID:	8140
Synonyms:	4F2LC; CD98; D16S469E; E16; LAT1; MPE16
Vector:	pGFP-C-shLenti (TR30023)
Format:	Lentiviral particles
Components:	SLC7A5 - Human shRNA lentiviral particles (4 unique 29mer target-specific shRNA, 1 scramble control), 0.5 ml each, >10^7 TU/ml.
RefSeq:	NM_003486, NM_003486.1, NM_003486.2, NM_003486.3, NM_003486.4, NM_003486.5, NM_003486.6, BC039692, BC039692.2, BC014177, BC042600, BC114608
UniProt ID:	Q01650
Summary:	The heterodimer with SLC3A2 functions as sodium-independent, high-affinity transporter that mediates uptake of large neutral amino acids such as phenylalanine, tyrosine, L-DOPA, leucine, histidine, methionine and tryptophan (PubMed:9751058, PubMed:10049700, PubMed:11557028, PubMed:10391915, PubMed:10574970, PubMed:11311135, PubMed:11564694, PubMed:12117417, PubMed:12225859, PubMed:25998567, PubMed:30867591). Functions as an amino acid exchanger (PubMed:11557028, PubMed:12117417, PubMed:12225859, PubMed:30867591). May play a role in the transport of L-DOPA across the blood-brain barrier (By similarity). May act as the major transporter of tyrosine in fibroblasts (Probable). May mediate blood-to-retina L-leucine transport across the inner blood-retinal barrier (By similarity). Can mediate the transport of thyroid hormones triiodothyronine (T3) and thyroxine (T4) across the cell membrane (PubMed:11564694, PubMed:12225859). When associated with LAPTM4B, the heterodimer formed by SLC3A2 and SLC7A5 is recruited to lysosomes to promote leucine uptake into these organelles, and thereby mediates mTORC1 activation (PubMed:25998567). Involved in the uptake of toxic methylmercury (MeHg) when administered as the L-cysteine or D,L-homocysteine complexes (PubMed:12117417). Involved in the cellular activity of small molecular weight nitrosothiols, via the stereoselective transport of L-nitrosocysteine (L-CNSO) across the membrane (PubMed:15769744).[UniProtKB/Swiss-Prot Function]

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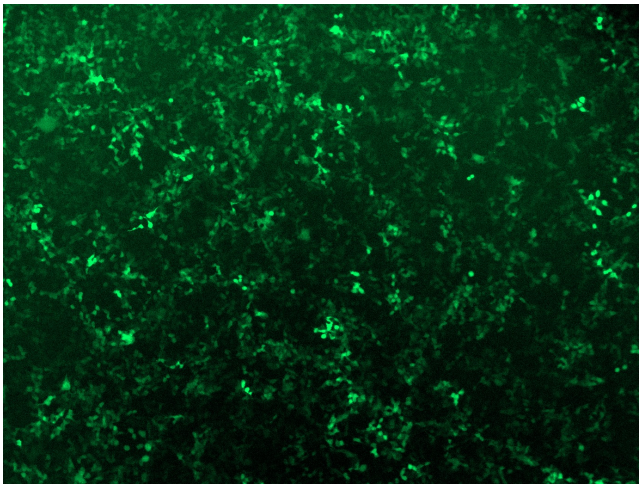
shRNA Design: These shRNA constructs were designed against multiple splice variants at this gene locus. To be certain that your variant of interest is targeted, please contact techsupport@origene.com. If you need a special design or shRNA sequence, please utilize our custom shRNA service.

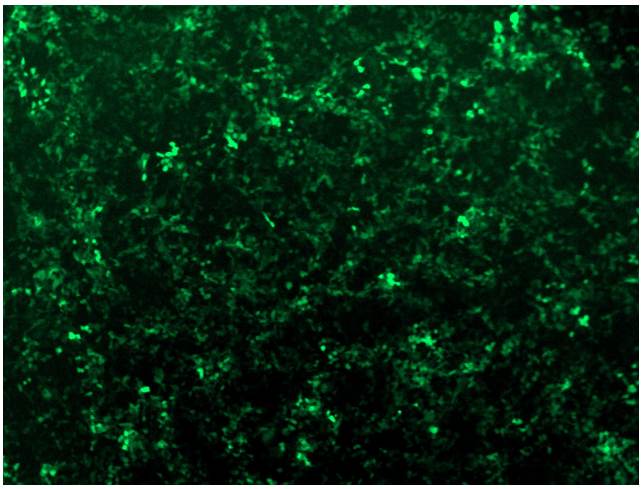
Performance Guaranteed: OriGene guarantees that the sequences in the shRNA expression cassettes are verified to correspond to the target gene with 100% identity. One of the four constructs at minimum are guaranteed to produce 70% or more gene expression knock-down provided a minimum transfection efficiency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

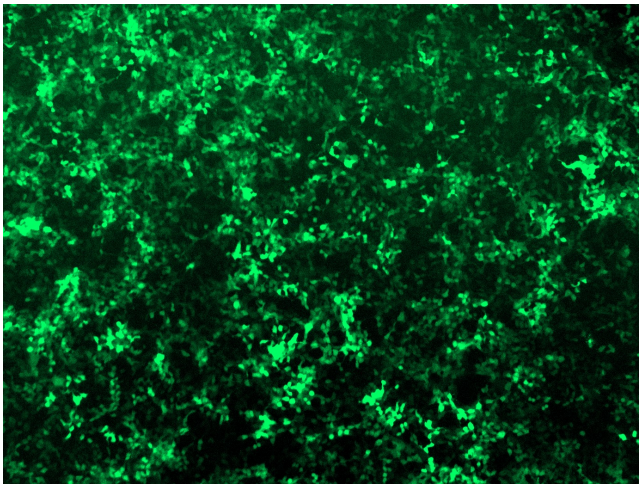
Product images:



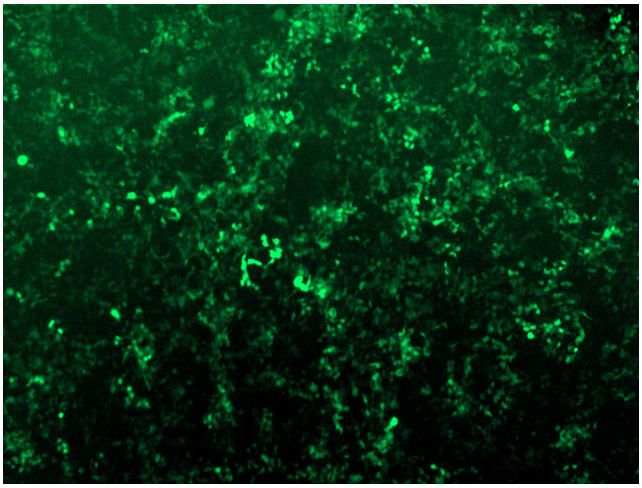
GFP signal was observed under microscope at 48 hours after transduction of TL309279A virus into HEK293 cells. TL309279A virus was prepared using lenti-shRNA TL309279A and [TR30037] packaging kit.



GFP signal was observed under microscope at 48 hours after transduction of TL309279B virus into HEK293 cells. TL309279B virus was prepared using lenti-shRNA TL309279B and [TR30037] packaging kit.



GFP signal was observed under microscope at 48 hours after transduction of [TL309279C] virus into HEK293 cells. [TL309279C] virus was prepared using lenti-shRNA [TL309279C] and [TR30037] packaging kit.



GFP signal was observed under microscope at 48 hours after transduction of [TL309279D] virus into HEK293 cells. [TL309279D] virus was prepared using lenti-shRNA [TL309279D] and [TR30037] packaging kit.