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Product datasheet for TL311216

NDUFV1 Human shRNA Plasmid Kit (Locus ID 4723)

Product data:

Product Type:	shRNA Plasmids
Product Name:	NDUFV1 Human shRNA Plasmid Kit (Locus ID 4723)
Locus ID:	4723
Synonyms:	CI-51K; CI51KD; MC1DN4; UQOR1
Vector:	pGFP-C-shLenti (TR30023)
E. coli Selection:	Chloramphenicol (34 ug/ml)
Mammalian Cell Selection:	Puromycin
Format:	Lentiviral plasmids
Components:	NDUFV1 - Human, 4 unique 29mer shRNA constructs in lentiviral GFP vector(Gene ID = 4723). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pGFP-C-shLenti Vector, TR30021, included for free.
RefSeq:	NM_001166102, NM_007103, NM_007103.1, NM_007103.2, NM_007103.3, BC015645, BC015645.2, BC008146, BC007619, NM_007103.4, NM_001166102.2
UniProt ID:	P49821
Summary:	The mitochondrial respiratory chain provides energy to cells via oxidative phosphorylation and consists of four membrane-bound electron-transporting protein complexes (I-IV) and an ATP synthase (complex V). This gene encodes a 51 kDa subunit of the NADH:ubiquinone oxidoreductase complex I; a large complex with at least 45 nuclear and mitochondrial encoded subunits that liberates electrons from NADH and channels them to ubiquinone. This subunit carries the NADH-binding site as well as flavin mononucleotide (FMN)- and Fe-S-biding sites. Defects in complex I are a common cause of mitochondrial dysfunction; a syndrome that occurs in approximately 1 in 10,000 live births. Mitochondrial complex I deficiency is linked to myopathies, encephalomyopathies, and neurodegenerative disorders such as Parkinson's disease and Leigh syndrome. Alternative splicing results in multiple transcript variants encoding distinct isoforms.[provided by RefSeq, Oct 2009]
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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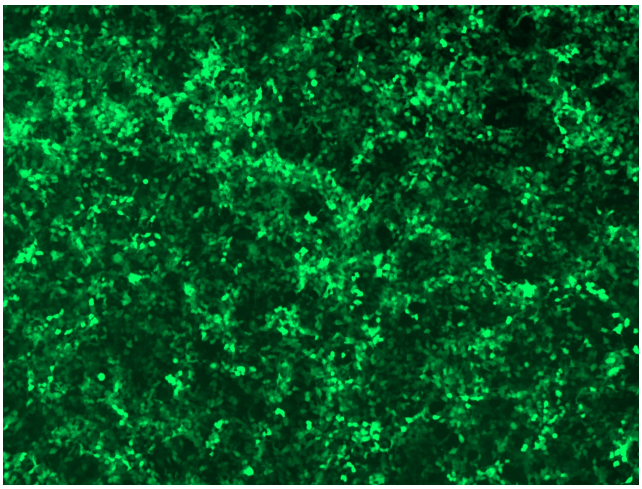
Performance Guaranteed:

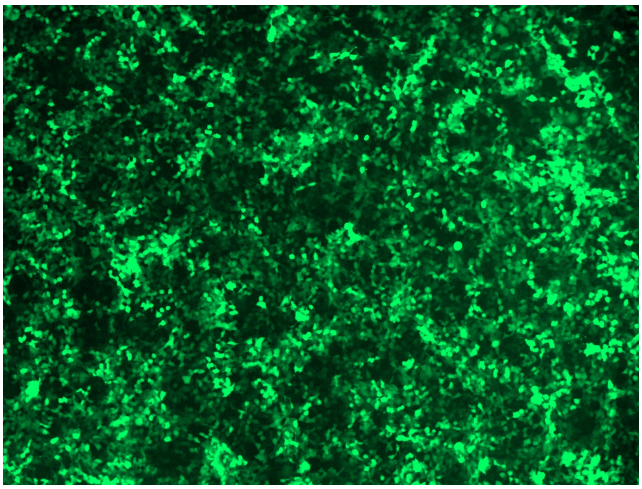
OriGene guarantees that the sequences in the shRNA expression cassettes are verified to correspond to the target gene with 100% identity. One of the four constructs at minimum are guaranteed to produce 70% or more gene expression knock-down provided a minimum transfection efficiency of 80% is achieved. 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).

Product images:



GFP signal was observed under microscope at 48 hours after transduction of TL311216A virus into HEK293 cells. TL311216A virus was prepared using lenti-shRNA TL311216A and [TR30037] packaging kit.



GFP signal was observed under microscope at 48 hours after transduction of [TL311216C] virus into HEK293 cells. [TL311216C] virus was prepared using lenti-shRNA [TL311216C] and [TR30037] packaging kit.