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Product datasheet for TL319880V

p16INK4A (CDKN2A) Human shRNA Lentiviral Particle (Locus ID 1029)

Product data:

Product Type:	shRNA Lentiviral Particles
Product Name:	p16INK4A (CDKN2A) Human shRNA Lentiviral Particle (Locus ID 1029)
Locus ID:	1029
Synonyms:	ARF; CDK4I; CDKN2; CMM2; INK4; INK4A; MLM; MTS-1; MTS1; P14; P14ARF; P16; P16-INK4A; P16INK4; P16INK4A; P19; P19ARF; TP16
Vector:	pGFP-C-shLenti (TR30023)
Format:	Lentiviral particles
Components:	CDKN2A - Human shRNA lentiviral particles (4 unique 29mer target-specific shRNA, 1 scramble control), 0.5 ml each, >10^7 TU/ml.
RefSeq:	BC015960, NM_000077, NM_001195132, NM_058195, NM_058196, NM_058197, NM_058195.1, NM_058195.2, NM_058195.3, NM_058197.1, NM_058197.2, NM_058197.3, NM_058197.4, NM_000077.1, NM_000077.2, NM_000077.3, NM_000077.4, NM_001195132.1, BC015960.2, BC021998, NM_001363763, NM_000077.5, NM_001195132.2, NM_058197.5
UniProt ID:	P42771
Summary:	This gene generates several transcript variants which differ in their first exons. At least three alternatively spliced variants encoding distinct proteins have been reported, two of which encode structurally related isoforms known to function as inhibitors of CDK4 kinase. The remaining transcript includes an alternate first exon located 20 Kb upstream of the remainder of the gene; this transcript contains an alternate open reading frame (ARF) that specifies a protein which is structurally unrelated to the products of the other variants. This ARF product functions as a stabilizer of the tumor suppressor protein p53 as it can interact with, and sequester, the E3 ubiquitin-protein ligase MDM2, a protein responsible for the degradation of p53. In spite of the structural and functional differences, the CDK inhibitor isoforms and the ARF product encoded by this gene, through the regulatory roles of CDK4 and p53 in cell cycle G1 progression, share a common functionality in cell cycle G1 control. This gene is frequently mutated or deleted in a wide variety of tumors, and is known to be an important tumor suppressor gene. [provided by RefSeq, Sep 2012]
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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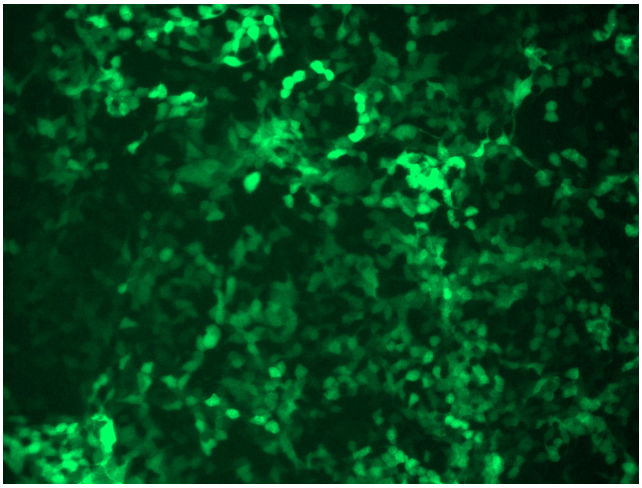
Performance Guaranteed:

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 TL319880A virus into HEK293 cells. TL319880A virus was prepared using lenti-shRNA TL319880A and [TR30037] packaging kit.

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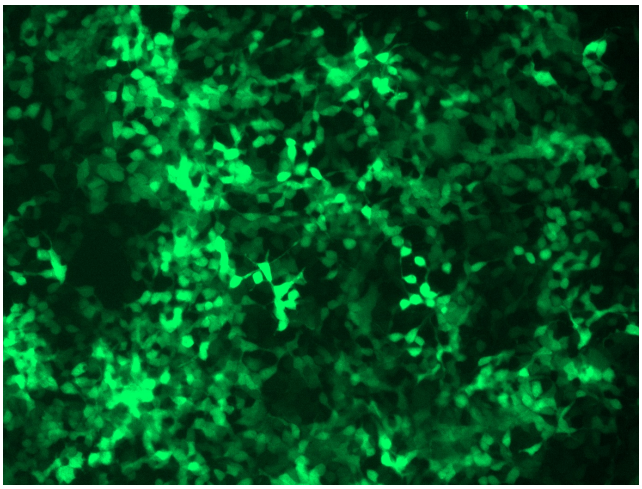
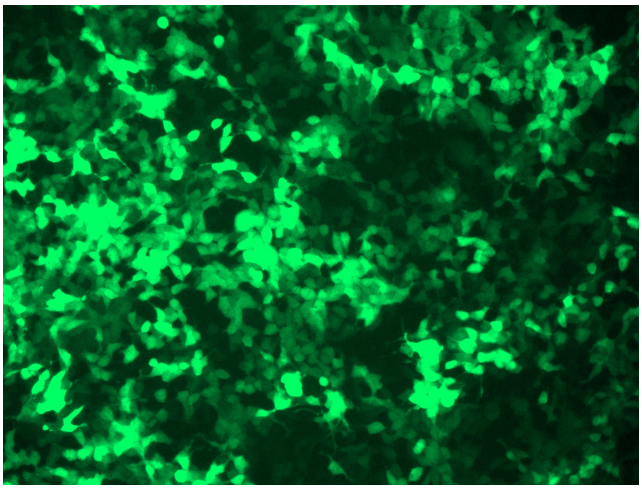
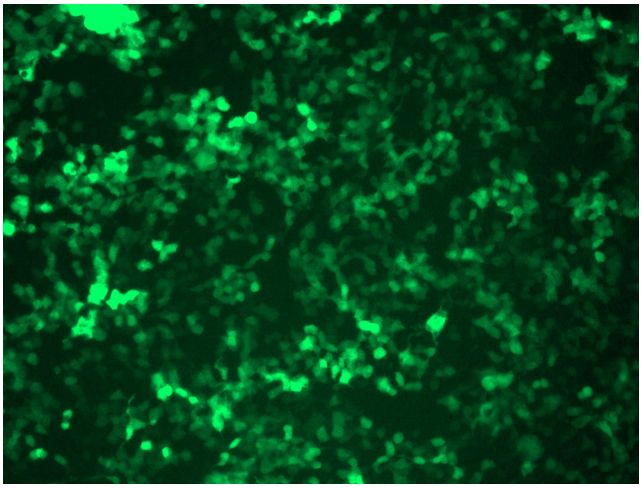


GFP signal was observed under microscope at 48 hours after transduction of TL319880B virus into HEK293 cells. TL319880B virus was prepared using lenti-shRNA TL319880B and [TR30037] packaging kit.



GFP signal was observed under microscope at 48 hours after transduction of [TL319880C] virus into HEK293 cells. [TL319880C] virus was prepared using lenti-shRNA [TL319880C] and [TR30037] packaging kit.



GFP signal was observed under microscope at 48 hours after transduction of [TL319880D] virus into HEK293 cells. [TL319880D] virus was prepared using lenti-shRNA [TL319880D] and [TR30037] packaging kit.

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