

Product Analysis Certificate

Control Lentiviral shRNA Construct
shNT in pRSIT16-U6Tet-sh-CMV-TetRep-2A-TagRFP-2A-Puro
Cat.# SHCTL-NT-pRSIT16



Control Lentiviral shRNA Construct

Shipment Contents: Control Lentiviral shRNA Construct (Plasmid)
shNT in pRSIT16-U6Tet-sh-CMV-TetRep-2A-TagRFP-2A-Puro
— Store at -20°C

Description:

Cellecta's shRNA constructs are lentiviral vectors expressing short-hairpin RNA for knockdown of target mRNA transcripts. The use of our proprietary shRNA design algorithm and database of validated shRNAs results in a high percentage of functional sequences, typically at least 70% knockdown efficiency for approximately 70% of the shRNA constructs. Results may vary between different cell types.

The Control Lentiviral shNT (non-targeting) shRNA Construct expresses an shRNA that does not target any known human, mouse, or rat genes.

The plasmid shRNA construct can be packaged into VSV-G pseudotyped viral particles using most commercially-available second or third-generation packaging mixes or Cellecta's second-generation psPAX2/pMD2.G packaging plasmid mix:

Cat.# CPCP-K2A, Ready-to-use Lentiviral Packaging Plasmid Mix, 250 µg (for 25 x 10-cm plates)

The titer of packaged constructs can be functionally determined by transduction of 293T cells and either FACS of RFP- or GFP-positive cells, antibiotic selection assay, or by PCR titering of integrated viral DNA.

Biosafety Level: BSL-2

Storage: -20°C

Shelf Life: 2 years from date of receipt

Shipping Conditions: Room Temperature, Blue Ice, or Dry Ice

Product Information (Cellecta Website):

User Manual: <https://www.cellecta.com/product-manuals-and-certificates/>
Vector Info (Sequence, etc.): <https://www.cellecta.com/vector-information/>

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Contents:

Catalog #	Description
SHCTL-NT-pRSIT16	<p>Control Lentiviral shRNA Expression Construct shNT in pRSIT16-U6Tet-sh-CMV-TetRep-2A-TagRFP-2A-Puro RefSeq#: n/a, Gene ID: n/a</p> <p>25 µg, 0.5 µg/µl (50 µl × 1 tube) Lot# 17111401; Store at -20°C</p>
Target Sequence:	CAACAAGATGAAGAGCACCAA
Insert (Hairpin) Seq.:	ACCGGCAACAAGATGGAGAGCACTAAGTTAATATTCATAGCTTGGTGCTCTTCATCTTGTGTTTT
Sequencing QC:	NANNNNTNTGGGTAGTTTGCAGTTTAAAAATATGTTTTAAAAATGGACTATCATATGCCTACCGTAACCTGAAAGTATT TCGATTTCTTGGCTTTATATATCTTGTGAAAAGGACGAAACACCGGCAACAAGATGGAGAGCACTAAGTTAATATTCATA GCTTGGTGCTCTTCATCTTGTGTTTTTTCGGACTGTAGAACCTGAACCTCGAGCAATTTAAAAGAAAAGGGGGATTG GGGGTACAGTGCAGGGGAAAGAATAGTAGACATAATAGCAACAGACATACAAACTAAAGAATTACAAAAACAAATTACA AAAATTCAAATTTCTGCGTTGTTGTCGGTGCCTGCTCTGCTCTTCACGCTACTGAATTCATACCGGTTCTTCGAAG GCCTCCGCGCCGGGTTTTGGCGCTCCCGGGGCGCCCCCTCCTCACGGCGAGCGCTGCCACGTGAGACGAAGGGCGCA GCGAGCGCTCTGATCCTCCGCGGACGCTCAGGACAGCGGCCCGCTGCTCATAAGACTCGGCCTTAGAACCCAGTAT CAGCAGAAGGACATTTTAGGACGGGACTTGGGTGACTCTAGGGCACTGGTTTTCTTTCCAGAGAGCGGAACAGGGCGAGGA AAAGTAGTCCCTTCTCGGCGATCTGCGGAGGGATCTCCGTGGGGCGGTGAACGCCGATGATTATAAAGGACGCGCCGG GTGTGGCACAGCTAGTTTCNGTCGACCGGGATTTGGGTGCGGTTCTTGTGTTGTGGATCGCTGTGATCGTCACTTGGT CTACACGCCACCATGGTGTCTAAAGGACGAAGATCTGATTAANGAGAACATGCACATGAACCTGTACATGGAAGGGGANC NGTGACACNACCNNCCACGTCAAGTGCACNTNCGAGGGCNAAGGCAAGTCCTACGAAGNGCAACCCAGACCATGAGATCA NNTGCTNNGGTCGGNCNCNCCNTCGCNTTCGAAATCTGN
Sequencing Primer:	ATTAGTACAAAATACGTGACGTAGAA (U6-3)

Design of Collecta shRNA Constructs:

ACCGG-21mer (sense w/ mismatch(es)*) -GTTAATATTCATAGC (loop) -21mer (antisense) -TTTT

* For some constructs, the sense portion of the shRNA may contain specific mismatches introduced by Collecta. We incorporate some mismatches in our library hairpins to improve stability and representation in a pooled-screening format. Although we have not observed any significant differences in efficacy between perfectly homologous shRNA sequences and those with 1-2 non-sequential mismatches, we typically use the same hairpin design for individual constructs to maintain sequence consistency with our functionally active library designs. **Note that this design may not apply in the case of customer-requested designs.**

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