

## Product Analysis Certificate

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



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## Control Lentiviral shRNA Construct

**Shipment Contents:** Control Lentiviral shRNA Construct  
shNT in pRSIT16-U6Tet-sh-CMV-TetRep-2A-TagRFP-2A-Puro (packaged)  
— Store at -80°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 titer of packaged constructs is 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-V	<b>Control Lentiviral shRNA Expression Construct</b> <b>shNT</b> in pRSIT16-U6Tet-sh-CMV-TetRep-2A-TagRFP-2A-Puro RefSeq#: n/a, Gene ID: n/a <u>Packaged, &gt;1 × 10<sup>7</sup> TU:</u> <b>1.89 × 10<sup>7</sup> TU</b> , 1.05 × 10 <sup>7</sup> TU/ml (1800 µl total: 1800 µl × 1 vial) Lot# 180228047; Store at -80°C
Target Sequence:	CAACAAGATGAAGAGCACCAA
Insert (Hairpin) Seq.:	ACCGGCAACAAGATGGAGAGCACTAAGTTAATATTCATAGCTTGGTGCTCTTCATCTTGTGTTTT
Sequencing QC:	NANNNNTTGGGTAGTTTGCAGTTTAAATATATGTTTTAAATGGACTATCATATGCTTACCGTAACTTGAAAGTATT TCGATTTCTTGGCTTTATATATCTTGTGGAAAGGACGAAACACCGGCAACAAGATGGAGAGCACTAAGTTAATATTCATA GCTTGGTGCTCTTCATCTTGTGTTTTTTCGGACTGTAGAACCTGAACTCGAGCAATTTAAAGAAAAGGGGGATTG GGGGGTACAGTGCAGGGGAAAGAAATAGTAGACATAATAGCAACAGACATACAAACTAAAGAATTACAAAAACAATTA AAAAATCAAAATTTCTGCGTTGTTGTTCGGTGCCTGCTCTTCTCCTTACCGTACTGAATTCATCACCAGTTCTTCGAAG GCCTCCGCGCCGGGTTTTGGCGCTCCCGCGGGCGCCCCCTCCTCACGGCGAGCGCTGCCACGTGAGACGAAGGGCGCA GCGAGCGTCTGATCCTTCGCCCCGAGCTCAGGACAGCGGCCCGCTGCTCATAAGACTCGGCCTTAGAACCCAGTAT CAGCAGAAGGACATTTAGGACGGGACTTGGGTGACTCTAGGGCACTGGTTTTCTTCCAGAGAGCGGAACAGGGCAGGA AAAGTAGTCCCTTCTCGGCGATTCTCGGAGGGATCTCCGTGGGGCGGTGAACGCCGATGATTATATAAGGACGCGCCGG GTGTGGCACAGCTAGTTTCNGTCGACGCCGGGATTTGGGTCCGCGTCTTGTGTTGTGGATCGCTGTGATCGTCACTTGGT CTACAGCCACCATGGTGTCTAAAGGACGAAGATCTGATTAANGAGAACATGCACATGAACCTGTACATGGAAGGGGANC NGTGACACNACCNNCCAGTCAAGTGACNTNCGAGGGCNAAGGCAAGTCTACGAAGNGCAACCCAGACCATGAGATCA NNTGCTTNNGGTCCGNCNCNCNTCGCNTTCGAAATCTGN
Sequencing Primer:	ATTAGTACAAAATACGTGACGTAGAA (U6-3)

### Design of Cellecta 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 Cellecta. 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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