

## Product Analysis Certificate

Control Lentiviral shRNA Construct  
shNT in pRSI17-U6-sh-UbiC-TagGFP2-2A-Puro (plasmid)  
Cat.# SHCTL-NT-pRSI17



### Control Lentiviral shRNA Construct

**Shipment Contents:** Control Lentiviral shRNA Construct  
shNT in pRSI17-U6-sh-UbiC-TagGFP2-2A-Puro (plasmid)  
-- 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 non-targeting (NT) lentiviral shRNA construct expresses an shRNA sequence with no significant homology to any mammalian transcript.

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:** Blue 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
1	SHCTL-NT-pRSI17	<b>Control Lentiviral shRNA Expression Construct</b> shNT in pRSI17-U6-sh-UbiC-TagGFP2-2A-Puro (Plasmid) RefSeq# n/a <u>Plasmid, &gt;25 µg:</u> <b>25 µg, 0.5 µg/µl (50 µl × 1 tube)</b> Lot# 17102505; Store at -20°C
	Target Sequence:	5' -CAACAAGATGAAGAGCACCAA-3'
	Insert (Hairpin) Seq.:	ACCGCAACAAGATGGAGAGCACTAAGTTAATATTCATAGCTTGGTGCTCTTCATCTTGTGTTTT
	Sequencing QC:	ANNTTTNTTGGGNAGTTTGCAGTTTTAAATATTGTTTTAAATGGACTATCATATGCTTACCGTAACTTGAAAGTATTCGATTTCTTGGCTTTATATATCTTGTGGAAAGGACGAAACACCGCAACAAGATGGAGAGCACTAAGTTAATATTCATAGCTTGGTGCTCTTCATCTTGTGTTTTTTCGGACTGTAGAACCTGAAACCTCGAGCAATTTAAAGAAAAGGGGGGATTGGGGGTACAGTGCAGGGGAAAGAATAGTAGACATAATAGCAACAGACATACAA
	Sequencing Primer:	5' -ATTAGTACAAAATACGTGACGTAGAA-3' (U6-3)

### Design of Cellecta shRNA Constructs:

ACCGG-21mer (**sense**+mismatch(es)\*)-GTTAATATTCATAGC (**loop**)-21mer (**antisense**)-TTTT

\* **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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