

## Product Analysis Certificate

Control Lentiviral PSMA1 shRNA Construct in pRSI16 (Packaged)  
Cat. # SVSHU616-PSMA1-VS  
Lot# 13120923



### Control Lentiviral PSMA1 shRNA Construct

**Shipment Contents:** Control Lentiviral PSMA1 shRNA Construct in pRSI16 (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 65% of shRNA constructs. Results may vary between different cell types.

The PSMA1 shRNA construct expresses an shRNA sequence targeting human proteasome (prosome, macropain) subunit, alpha type, 1 (PSMA1) mRNA.

The titer of packaged pRSI16 constructs provided by Cellecta is functionally determined by transduction of 293T cells and FACS of RFP-positive cells.

**Biosafety Level:** BSL-2

**Storage:** -80°C

**Shelf Life:** 1 year from date of receipt

**Shipping Conditions:** Dry Ice

#### Product Information (Cellecta Website):

User Manual: <http://www.cellecta.com/resources/protocols/>  
Vector Info (Sequence, cassette, etc): <http://www.cellecta.com/resources/vectors/>

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### Contents:

#	Catalog #	Description
1	SVSHU616-PSMA1-VS	<b>Control Lentiviral PSMA1 shRNA Expression Construct (Packaged)</b> pRSI16-U6-shPSMA1-UbiC-TagRFP-2A-Puro RefSeq# NM_002786.2 Packaged, $>1 \times 10^7$ TU: <b><math>1.48 \times 10^7</math> TU</b> , $5.91 \times 10^7$ TU/ml (250 $\mu$ l total: 250 $\mu$ l $\times$ 1 vial) Lot# 13120923; Store at $-80^\circ\text{C}$
	Target Sequence:	GAAAGGGTCTGTATAATCATT
	Insert (Hairpin) Seq.:	ACCGGAAAGGGTCTGTATAATCATTGTTAATATTCATAGCAATGATTATACAGACCCCTTCTTTT
	Sequencing QC:	NNNNNTCTTGGGTAGTTTGCAGTTTTAAAAATTATGTTTTAAAAATGGACTATCATATGCTTACCGTAACTTGAAGTATTTTCGATTTCTTGGCTTTATATATCTTGTGGAAAGGACGAAACACCGGGAAAGGGTCTGTATAATCATTGTTAATATTCATAGCAATGATTATACAGACCCCTTCTTTTTCGGACTGTAGAATCTGAACCTCGAGCAATTTAAAAGAAAAGGGGGGATTGGGGGTACAGTGCAGGGGAAAGAATAGTAGACATAATAGCAACAGACATACAAACTAAAGAATTACAAAACAAATTACAAAATTCAAAATTTCTGCGTTGTTGTCGGTGCTCGTTCTCTGCTTTCACGCTACTGAATTCATCACCGGTTCTTCGAAGGCCTCCGCGCCGGTTTTGGCGCCTCCCGCGGGCGCCCCCTCCTCACGGGAGCGCTGCCACGTCAGACGAAGGGCGCAGCGAGCGTCCGTATCCTCCGCCGGACGCTCAGGACAGCGGCCCGCTGCTCATAAGACTCGGCTTAGAACCCAGTATCAGCAGAAGGACATTTAGGACGGGACTTGGGTGACTCTAGGGCACTGGTTTTCTTCCAGAGAGCGGAACAGGGGAGGAAAAGTAGTCCCTTCTCGCGATTCTGCGGAGGATCTCCGTGGGGCGGTGAACGCCGATGATTATATAAGGACGCGCCGGTGTGGCACAGCTAGTTTCNGTGCAGCCGGGATTTGGGTCGCGGTTCTGTTTGTGGATCGGTGATCGTCACTTGGTCTACACGCCACCATGGTGTCTAAAGGACGAAGA
	Sequencing Primer:	CCTAGTACAAAATACGTGACGTAGAA (U6-2)

### 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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