

## Product Analysis Certificate

Custom Lentiviral shRNA Constructs (Plasmid)



### Control Lentiviral Human EIF3A shRNA Construct

**Shipment Contents:** Control Lentiviral Human EIF3A shRNA Construct in pRSI16 (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 shRNA constructs. Results may vary between different cell types.

The Lentiviral Human EIF3A shRNA Construct expresses a functionally validated shRNA targeting Human EIF3A mRNA (RefSeq# NM\_003750.2).

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 (Ready-to-use Packaging Plasmid Mix, Cat.# CPCP-K2A, 250 µg).

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

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### Contents:

#	Catalog #	Description
1	SHCTL-EIF3A-PX	<b>Control Lentiviral Human EIF3A shRNA Expression Construct (Plasmid)</b> In pRSI16-U6-sh-UbiC-TagRFP-2A-Puro RefSeq#: NM_003750.2 <u>Plasmid, &gt;25 µg:</u> <b>25 µg</b> , 0.5 µg/µl (50 µl) Lot# 16022604; Store at -20°C
	Target Sequence:	GCGCCTTGAGAGTCTGAATAT
	Insert (Hairpin) Seq.:	GCGCCTTGAGAGTCTGAATAT
	Sequencing QC:	ANNNTTCTTGGGTAGTTTGCAGTTTAAAATTATGTTTAAAATGGACTATCATATGCTTACCGTAACTTGA AAGTATTTTCGATTTCTTGGCTTTATATACTTGTGGAAAGGACGAAACACCGGGCGCTTTGAGAGTTTGAAT ATGTTAATATTCATAGCATATTCAGACTCTCAAGGCGCTTTTTTCGGACTGTAGAAGCTTGAACCTCGAGCA ATTTAAAAGAAAAGGGGGATTGGGGGTACAGTGCAGGGGAAAAGAATAGTAGACATAATAGCAACAGACAT ACAA
	Sequencing Primer:	ATTAGTACAAAATACGTGACGTAGAA (U6-3)

### Design of Collecta shRNA Constructs:

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

\* 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.

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