

Product Analysis Certificate

Control Lentiviral CRISPR sgRNA Construct
sgNT Control in pRSG16-U6-sg-UbiC-TagRFP-2A-Puro (plasmid)
Cat.# SGCTL-NT-pRSG16



Control Lentiviral CRISPR sgRNA Construct

Shipment Contents: Control Lentiviral CRISPR sgRNA Construct (Plasmid)
sgNT Control in pRSG16-U6-sg-UbiC-TagRFP-2A-Puro (plasmid)
— Store at -20°C

Description:

Cellecta's two-vector CRISPR/Cas9 system can be used for knocking out gene expression *in vivo* or *in vitro* by using a combination of an sgRNA (single guide RNA) expression vector along with a Cas9 nuclease expression vector. Permanent 100% knockout can be achieved in virtually any cell line by using Cellecta's lentiviral-based CRISPR constructs. Expression of both the sgRNA and Cas9 is stable, and the system can be used in dividing or non-dividing cells or whole model organisms.

Cas9-only Expression Vectors are available separately from Cellecta:

- pRCCB-CMV-Cas9-2A-Blast, Cat.#s SVC9B-PS (plasmid, 25 µg), SVC9B-VS (packaged, 1×10^6 TU)
- pRCCH-CMV-Cas9-2A-Hygro, Cat.#s SVC9-PS (plasmid, 25 µg), SVC9-VS (packaged, 1×10^6 TU)

The Control Lentiviral NT sgRNA Construct expresses an sgRNA that does not target any known human, mouse, or rat genes.

The plasmid sgRNA 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
SGCTL-NT-pRSG16	Control Lentiviral CRISPR sgRNA Expression Construct sgNT Control in pRSG16-U6-sg-UbiC-TagRFP-2A-Puro (plasmid) Gene ID: n/a Reorder#: SGCTL-NT-pRSG16 25 µg, 0.5 µg/µl (50 µl × 1 tube) Lot# 17102510; Store at -20°C
Target Sequence:	GGCAGTCGTTCCGGTTGATAT
Insert Sequence + tracrRNA:	<u>ACCGGGCAGTCGTTCCGGTTGATAT</u> GTTTAAAGAGCTATGCTGGAAACAGCATAGCAAGTTTAAATAAGGCT AGTCCGTTATCAACTTGAAAAAGTGCCACCGAGTCGGTGCTTTTTTCG
Sequencing QC:	NNNTCTTGNGTAGTTTGCAGTTTTAAAAATTATGTTTTAAAAATGGACTATCATATGCTTACCGTAACTTGA AAGTATTTTCGATTTCTTGGCTTTATATATCTTGTGGAAAGGACGAAACACCGGGCAGTCGTTCCGGTTGAT ATGTTTAAAGAGCTATGCTGGAAACAGCATAGCAAGTTTAAATAAGGCTAGTCCGTTATCAACTTGAAAA GTGGCACCGAGTCGGTGCTTTTTTCGGACTGTAGAACTCTGAACCTCGAGCAATTTAAAAGAAAAGGGGG GATTGGGGGTACAGTGCAGGGGAAAGAATAGTAGACATAATAGNNCNAACCATACAA
Sequencing Primer:	ATTAGTACAAAATACGTGACGTAGAA (U6-3)

Design of Collecta sgRNA Constructs:

ACCG-sgRNA-tracrRNA-TTCC

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