

Product Analysis Certificate

CRISPR Human Genome Knockout Library, Module 1 (Packaged), 1 x 10⁹ TU
Cat.# KOHW-M1-V9



CRISPR Human Genome Knockout Library, Module 1 (55K)

Shipment Contents: CRISPR Human Genome Knockout Library, Module 1 (Packaged), 1 × 10⁹ TU
— Store at -80°C

Description:

Cellecta's CRISPR sgRNA libraries are pooled lentiviral sgRNA libraries constructed in third-generation lentiviral vectors and optimized for CRISPR genetic screens in pooled format. The sgRNA designs we use result in a high percentage of functional sequences, typically at least 70% of the sgRNAs. The vast majority of sgRNA constructs in the library are represented equally, with the difference in concentrations usually not exceeding two orders of magnitude between the most and the least represented. Typically, virtually 100% of the population of sgRNA constructs is present within a 10 to 100-fold range. We guarantee that at least 90% are present within a 100-fold range and 70% are present within a 10-fold range.

Our sgRNA expression cassettes are optimized for Next-Gen Sequencing and identification of sgRNAs. Using the Illumina NextSeq or HiSeq NGS platform, sgRNA are identified and can be converted to lists of sgRNA with enumerated sequencing data.

Cellecta CRISPR sgRNA library screens require cells to first be transduced with a separate lentiviral vector expressing SpCas9 (Cas9 endonuclease from *Streptococcus pyogenes*). We recommend using Cellecta's Cas9 Expression Plasmids.

The CRISPR Human Genome Knockout Library consists of 3 modules and targets nearly all protein-encoding genes:

- Each module covers approximately 6,500 genes
- Each gene is targeted by 4-8 sgRNA for a total of up to 55,000 sgRNA per module
- Library targets nearly all (more than 19,000) protein encoding genes

Human Module 1 targets signal transduction genes:

- Members of major signal transduction pathways
- Top-ranking genes from the Cancer Genome Atlas
- Approved drug targets
- Many disease-associated genes

The libraries are constructed in Cellecta's pRSG16-U6-sg-UbiC-TagRFP-2A-Puro lentiviral vector that expresses sgRNA under a wild-type U6 promoter and TagRFP (Evrogen) and Puro resistance genes under a human ubiquitin C promoter.

The titer of packaged libraries provided by Cellecta can be functionally determined by transduction of your target cell line and FACS of RFP-positive transduced 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: <https://www.cellecta.com/product-manuals-and-certificates/>
Vector Info (Sequence, cassette, etc): <https://www.cellecta.com/vector-information/>
Target Gene List, sgRNA sequences: Please contact Cellecta at orders@cellecta.com.

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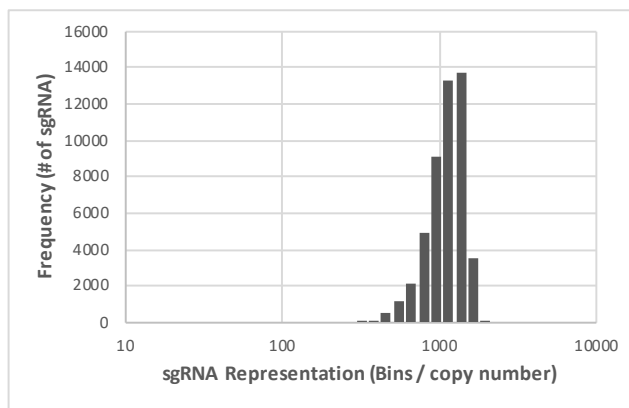
Contents

Catalog #	Description
KOHGW-M1-V9	CRISPR Human Genome Knockout Library, Module 1 (55K) in pRSG16-U6-sg-UbiC-TagRFP-2A-Puro Packaged, 1 x 10 ⁹ TU: 1.07 × 10⁹ TU , 1.15 × 10 ⁹ TU/ml (930 µl total: 50 µl × 18 vials, 5 µl × 6 vials) Lot# 191016004; Store at -80°C

Plasmid Library Information

Plasmid Lot #:	15082402
Library Complexity (number of clones):	22 × 10 ⁶
Number of random clones picked:	24
Correct Structure:	>95%
Number of clones with at least one mutation, deletion, or insertion:	3
Mutation / Deletion / Insertion Rate:	0.48%
Estimated % of Inserts without any mutations, deletions, or insertions in <u>gRNA</u> portion and considered to be functional:	>90%

Library Representation



Sequence File Name (sgRNA Sequences and NGS QC Data)

Cellecta-SEQ-KOHGW-M1-pRSG16-CRISPR-Library-15082402ngp.xlsx

NGS Prep of Screening Samples

Cellecta provides the following NGS products and services. For pricing, please inquire.

Cat.#	Description	Quantity
LNGS-120	NGS Prep Kit for sgRNA Libraries in pRSG16/17	Kit for 6-48 samples (48 preps of 50 µg each, 12 multiplex)
CANA-SQD	NGS of DNA from Genetic Screen	Service (per DNA sample)

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Terms and Conditions

Cellecta, Inc. Limited License

Cellecta grants the end user (the "Recipient") of the CRISPR Human Genome Knockout Library, Module 1 (the "Product") a non-transferable, non-exclusive license to use the reagents for internal research use only as described in the enclosed protocols; in particular, research use only excludes and without limitation, resale, repackaging, or use for the making or selling of any commercial product or service without the written approval of Cellecta, Inc. -- separate licenses are available for non-research use or applications. The Product is not to be used for human diagnostics or included/used in any drug intended for human use. Care and attention should be exercised in handling the Product by following appropriate research laboratory practices.

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Life Technologies Corporation End-User Label License for the use of Lentiviral Expression System:

"This product or service (based upon the Lentiviral Expression System) is sublicensed from Life Technologies Corporation under U.S. Patent Nos. 5,686,279; 5,834,256; 5,858,740; 5,994,136; 6,013,516; 6,051,427; 6,165,782; 6,218,187; 6,428,953; 6,924,144; 7,083,981 and 7,250,299 and corresponding patents and applications in other countries for internal research purposes only. Use of this technology for gene therapy applications or bioprocessing other than for nonhuman research use requires a license from GBP IP, LLC. Please contact GBP IP, LLC 537 Steamboat Road, Suite 200, Greenwich, CT 06830. Use of this technology to make or sell products or offer services for consideration in the research market requires a license from Life Technologies Corporation, 5791 Van Allen Way, Carlsbad, CA 92008."

Evrogen IP JSC End-User Label License for the use of lentiviral shRNA constructs comprising TagRFP-encoded gene:

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