

Product Analysis Certificate

CRISPR Mouse Genome 80K Knockout Library in EF1-Thy1.2 Vector (Packaged)
Cat.# KOMGW-ET1.2-80K-V8



CRISPR Mouse Genome 80K Knockout Library in EF1-Thy1.2 Vector

Shipment Contents: CRISPR Mouse Genome 80K Knockout Library in EF1-Thy1.2 Vector (Packaged),
2 × 10⁸ 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 one order of magnitude between the most and the least represented. Typically, 90% of the population of sgRNA constructs is present within a 3-fold range.

Our optimized sgRNA expression cassettes are optimized for Next-Generation Sequencing (NGS) 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.

The CRISPR Mouse Genome 80K Knockout Library consists of a single module targeting nearly all protein-encoding genes:

- All mouse protein-coding genes covered—approximately 19,600 gene targets
- Each gene is covered by 4 sgRNAs designed to target functional domains and conserved transcript regions
- Controls include: 993 Non-Targeting and 28 Intron-targeting

The library is constructed in Cellecta's pRSGEThy1.2-U6-sg-EF1-Thy1.2 lentiviral vector that expresses sgRNA under a wild-type U6 promoter and mouse Thy1.2 under an EF1 promoter.

The titer of packaged libraries provided by Cellecta is functionally determined by transduction of 293T cells at low MOI and PCR titering of integrated lentiviral DNA.

Two-Vector system libraries require a separate Cas9-only vector, available separately from Cellecta:

<u>Cas9 Expression Vectors</u>	<u>Plasmid Cat.#</u>	<u>Virus Cat.#</u>
CRISPR Cas9 pRCCH-CMV-Cas9-2A-Hygro	SVC9-PS	SVC9-VS
CRISPR Cas9 pRCCB-CMV-Cas9-2A-Blast	SVC9B-PS	SVC9B-VS
CRISPR Cas9 pRCCG-CMV-Cas9-2A-TagGFP2	SVC9G-PS	SVC9G-VS
CRISPR Cas9 pRCCN-CMV-Cas9-2A-Neo	SVC9N-PS	SVC9N-VS
CRISPR Cas9 pRCCP-CMV-Cas9-2A-Puro	SVC9P-PS	SVC9P-VS
CRISPR Cas9 pRCCR-CMV-Cas9-2A-TagRFP	SVC9R-PS	SVC9R-VS

Fluorescence Marker: None
Biosafety Level: BSL-2
Storage: -80°C
Shelf Life: 1 year from date of receipt
Shipping Conditions: Dry Ice

Product Information

The user manual, gene list, and vector map/sequence are available on our website:
<https://www.cellecta.com/crispr-mouse-genome-wide-library/>

The sgRNA library sequences file with NGS QC is provided by email upon shipment.
Please contact Cellecta at orders@cellecta.com if you have not received it.

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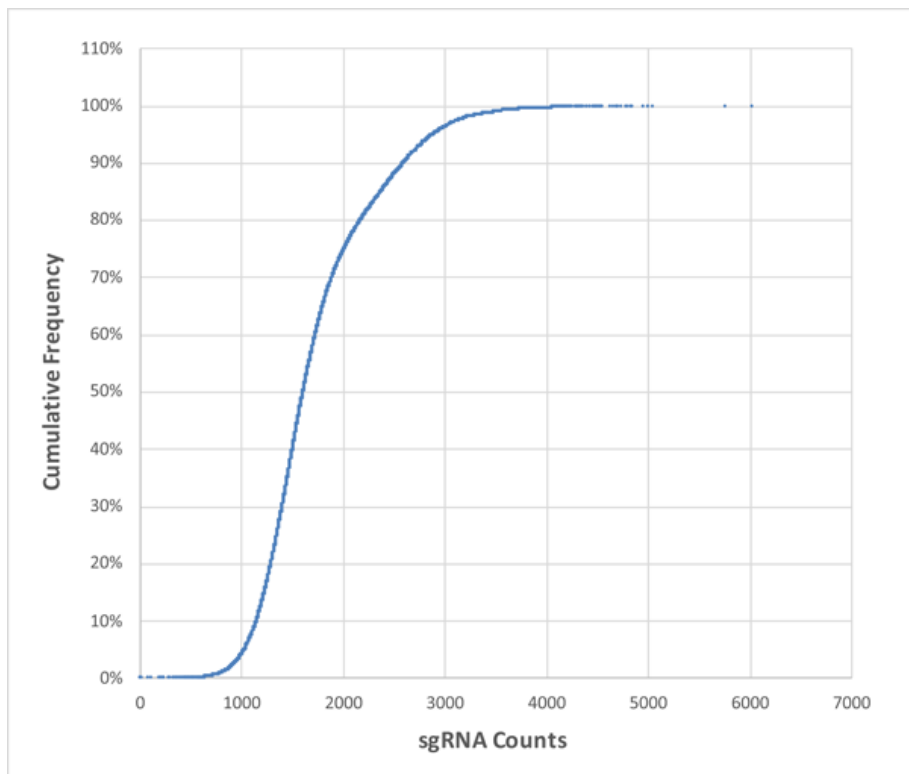
Contents

Catalog #	Description
KOMGW-ET1.2-80K-V8	CRISPR Mouse Genome 80K Knockout Library in EF1-Thy1.2 Vector in pRSGEThy1.2-U6-HTS6C-EF1-Thy1.2 <u>Packaged, 2×10^8 TU:</u> 3.67×10^8 TU , 3.49×10^9 TU/ml (105 μ l total: 50 μ l \times 2 vials, 5 μ l \times 1 vial) Lot# 181010002; <i>Store at -80°C</i> (<i>Origin: Plasmid Lot# 181010001</i>)

Sequence File Name (sgRNA Sequences and Annotations, Clone QC Data, & NGS QC Data):
Cellecta-SEQ-CRISPR-KOMGW-80K-Library-pRSGEThy1.2-181010001.xlsx.

Quality Control

Library Representation



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Individual Clone Sequencing Data (with NGS-based mutation rate estimate)

Library:	CRISPR Mouse Genome 80K Knockout Library in EF1-Thy1.2 Vector
Plasmid Lot #:	181010001
Library Complexity (number of clones):	200 x 10 ⁶
Number of random clones picked:	19
Correct Structure:	>95%
Number of clones with at least one mutation, deletion, or insertion:	0
Mutation / Deletion / Insertion Rate:	0.2%
Estimated % of Inserts without any mutations, deletions, or insertions in <u>gRNA</u> portion and considered to be functional (Based on Clone QC):	>95%
Mutation / Deletion / Insertion Rate (based on NGS—more accurate):	<0.25%
Estimated % of Inserts without any mutations, deletions, or insertions in <u>gRNA</u> portion (based on NGS—more accurate):	>95%

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 (KOHGW)	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

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