

## Product Analysis Certificate

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



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

**Shipment Contents:** CRISPR Mouse Genome 80K Knockout Library in EF1-Thy1.2 Vector (Plasmid)  
— Store at -20°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 plasmid library 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). The titer of packaged libraries can be functionally determined by transduction of 293T cells 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 pRCCB-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:** -20°C  
**Shelf Life:** 2 years from date of receipt  
**Shipping Conditions:** Blue or 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](mailto:orders@cellecta.com) if you have not received it.

## Product Analysis Certificate

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



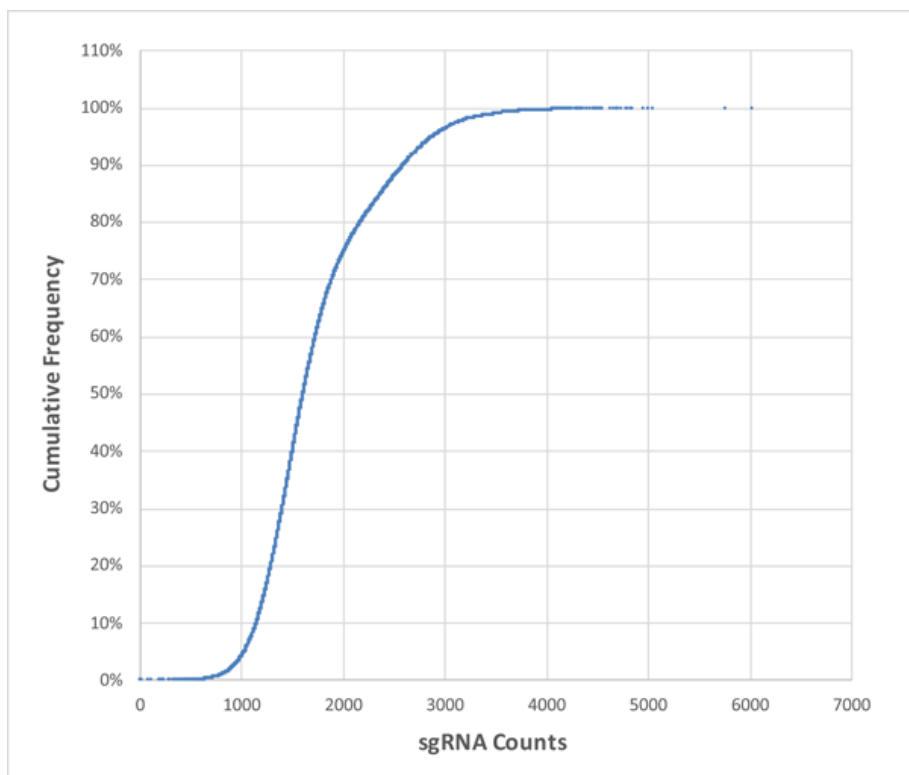
### Contents

Catalog #	Description
KOMGW-ET1.2-80K-P	<b>CRISPR Mouse Genome 80K Knockout Library in EF1-Thy1.2 Vector</b> in pRSGEThy1.2-U6-HTS6C-EF1-Thy1.2 <u>Plasmid, 200 µg:</u> <b>200 µg</b> , 1.0 µg/µl (200 µl × 1 tube) Lot# 181010001; Store at -20°C

**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



## Product Analysis Certificate

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



### 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 <sup>6</sup>
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%
<b>Mutation / Deletion / Insertion Rate (based on NGS—more accurate):</b>	<b>&lt;0.25%</b>
<b>Estimated % of Inserts without any mutations, deletions, or insertions in <u>gRNA</u> portion (based on NGS—more accurate):</b>	<b>&gt;95%</b>

### 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)

## Product Analysis Certificate

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



---

## Terms and Conditions

### Cellecta, Inc. Limited License

Cellecta grants the end user (the "Recipient") of the CRISPR Mouse Genome 80K Knockout Library (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.

Cellecta's liability is expressly limited to replacement of Product or a refund limited to the actual purchase price. Cellecta's liability does not extend to any damages arising from use or improper use of the Product, or losses associated with the use of additional materials or reagents. This limited warranty is the sole and exclusive warranty. Cellecta does not provide any other warranties of any kind, expressed or implied, including the merchantability or fitness of the Product for a particular purpose. Use of the Product for any use other than described expressly herein may be covered by patents or subject to rights other than those mentioned. Cellecta disclaims any and all responsibility for injury or damage that may be caused by the failure of the Recipient or any other person to use the Product in accordance with the terms and conditions outlined herein.

The Recipient may refuse these licenses by returning the enclosed Product unused. By keeping or using the enclosed Product, you agree to be bound by the terms of these licenses. The laws of the State of California shall govern the interpretation and enforcement of the terms of these Licenses.

Terms and Conditions are also available online at <https://www.cellecta.com/company/legal-information/terms-and-conditions/>.

© 2018 Cellecta, Inc. All Rights Reserved.

### **Trademarks**

CELLECTA is a registered trademark of Cellecta, Inc.