

Product Analysis Certificate

CRISPR Human Genome 80K Knockout Library in EF1-Puro Vector (Plasmid)
Cat.# KOHW-EP-80K-P



CRISPR Human Genome 80K Knockout Library in EF1-Puro Vector

Shipment Contents: CRISPR Human Genome 80K Knockout Library in EF1-Puro 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 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 optimized 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 from *Streptococcus pyogenes*). We recommend using Cellecta's Cas9-Blast vector (Cat.# SVC9B-PS, 25 µg plasmid, or Cat.# SVC9B-VS, 1 x 10⁶ TU packaged virus).

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

- The library covers approximately 19,000 genes
- Each gene is targeted by 4 sgRNA
- Controls include: 500 non-targeting; 80 intron-targeting; and 40 positive-control sgRNA against 10 targets

The library is constructed in Cellecta's pRSGEP-U6-sg-HTS6C-EF1-Puro lentiviral vector that expresses sgRNA under a wild-type U6 promoter and Puro resistance genes under a human Elongation Factor-1a promoter.

The libraries 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: Blue or Dry Ice

Product Analysis Certificate

CRISPR Human Genome 80K Knockout Library in EF1-Puro Vector (Plasmid)
Cat. # KOHGW-EP-80K-P



Product Information (Cellecta Website):

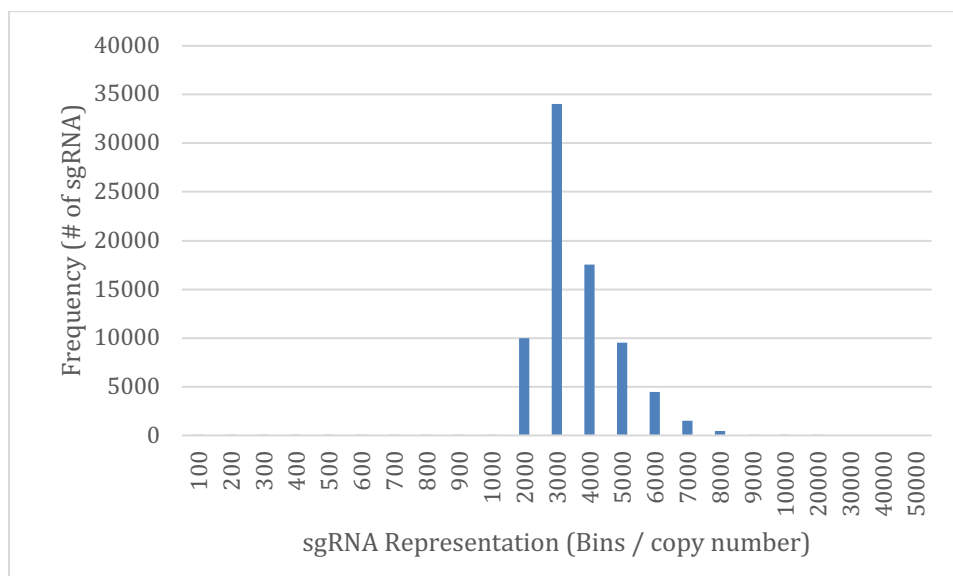
User Manual: <https://www.cellecta.com/product-manuals-and-certificates/>
Vector Info (Sequence, cassette, etc): <https://www.cellecta.com/vector-information/>
Target Gene List, sgRNA sequences: Please contact Cellecta at orders@cellecta.com.

Contents:

Catalog #	Description
KOHGW-EP-80K-P	CRISPR Human Genome 80K Knockout Library in EF1-Puro Vector in pRSGEP-U6-sg-HTS6C-EF1-Puro <u>Plasmid, 200 µg:</u> 200 µg , 1.0 µg/µl (200 µl × 1 tube) Lot# 17122020; Store at -20°C

Quality Control

Library Representation



Library sgRNA Sequence File (sent with PAC)

Cellecta-SEQ-CRISPR-KOHGW-80K-Library-pRSGEP-17122020.xlsx

Product Analysis Certificate

CRISPR Human Genome 80K Knockout Library in EF1-Puro Vector (Plasmid)
Cat. # KOHW-EP-80K-P



Individual Clone Sequencing Data

The sequencing data shown is that of the Plasmid Library.

Library:	CRISPR Human Genome 80K Knockout Library
Plasmid Lot #:	17122020
Library Complexity (number of clones):	80×10^6
Number of random clones picked:	21
Correct Structure:	>95%
Number of clones with at least one mutation, deletion, or insertion:	3
Mutation / Deletion / Insertion Rate:	0.37%
Estimated % of Inserts without any mutations, deletions, or insertions in <u>gRNA</u> portion and considered to be functional (Based on Clone QC):	93%
Estimated % of Inserts without any mutations, deletions, or insertions in <u>gRNA</u> portion and considered to be functional (Based on NGS QC):	>91%

NGS Prep of Screening Samples

Cellecta provides the following options for preparing and sequencing your screening samples. For pricing, please inquire.

Cat.#	Description	Quantity
LNGS-120	NGS Prep Kit for sgRNA Libraries in pRSG16/17 <i>(compatible with sgRNA Libraries in pRSGEP)</i>	Kit for 6-48 samples (48 preps of 50ug each)
CANA-SQD	NGS of DNA from Genetic Screen	Service (per DNA sample)

Product Analysis Certificate

CRISPR Human Genome 80K Knockout Library in EF1-Puro Vector (Plasmid)
Cat. # KOHGW-EP-80K-P



Terms and Conditions

Cellecta, Inc. Limited License

Cellecta grants the end user (the "Recipient") of the CRISPR Human 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 available online at <http://www.cellecta.com/company/legal-information/terms-and-conditions/>.

© 2018 Cellecta, Inc. All Rights Reserved.

Trademarks

CELLECTA is a registered trademark of Cellecta, Inc.