

SureGuide CRISPR Libraries

GeCKOv2 Catalog Libraries

Benefits

SureGuide Catalog CRISPR Libraries

- Exome-wide knock-down screening - Validated guides targeting all known genes
- Highest quality, sequence-verified GeCKOv2 libraries
- Lentiviral, ready-to-package plasmid libraries
- Human and mouse libraries - Common model organisms/cell lines for genome-wide screening
- Full flexibility to develop your research applications

SureGuide CRISPR Libraries

Agilent's pooled libraries come in a variety of formats designed to suit your unique experimental requirements. Pooled libraries require both uniform representation and high fidelity to reduce screening, improve analysis and speed your time to results. All of our libraries, whether standard, genome-wide content or fully customized pools, are synthesized on our industry-leading DNA manufacturing system, so you can be sure of getting the same quality and consistency out of every assay. Our CRISPR libraries are also one of the few licensed solutions for conducting research with pooled guide libraries, making sure that you have not only the best libraries available but the freedom to use them for the research you've designed.

Catalog Ready-to-Package Plasmid Library

Agilent's catalog CRISPR guide libraries target all exonic sequences in the human and mouse genome and are ideal for genome-wide functional screening. These libraries contain content developed by and licensed by a well known research institute. In comparison to other GeCKO libraries, Agilent's GeCKO libraries contain fewer missed guides and more uniform representation across the library (Table 1). Both the mouse and human GeCKO libraries come as plasmids, with a puromycin selection marker and a GFP reporter, that can be used to generate high-titers of lentiviral particles.

Integration of SureGuide CRISPR library in Genomics Assay Workflow

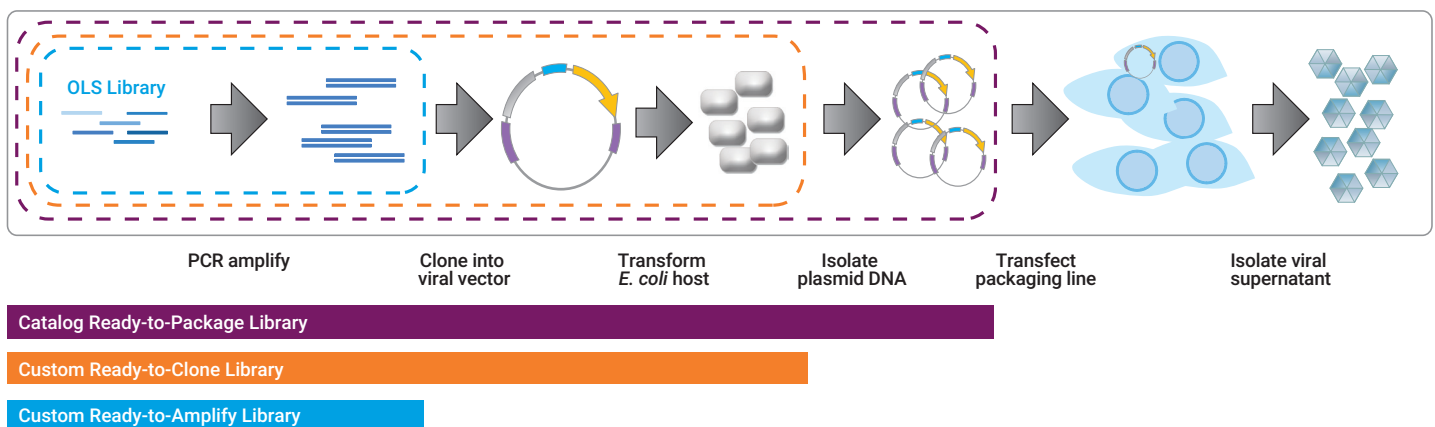


Figure 1. Agilent offers CRISPR libraries in a variety of formats, from plasmid libraries to unamplified oligo pools.

GeCKO Libraries

	Human	Mouse
Species	Human	Mouse
Genes targeted	19,050	20,611
Targeting constructs per gene	6	6
miRNA targeted	1,864	1,175
Targeting constructs per miRNA	4	4
Control (nontargeting) sgRNA	1,000	1,000
Total sgRNA constructs	123,411	130,209
Viral plasmid vector	Single and dual vector.LentiCRISPRv2 and lenitGuide-Puro	

Table 1. The GeCKOv2 library contains experimentally validated CRISPR guides targeting all human or mouse genes.

Guide Representation Comparison with Competitor Libraries

	Missed Guides	90th/10th percentile	95th/5th percentile	99.5th/0.5th percentile
Agilent option 1	1	2.32	3.04	6.72
Agilent option 2	1	2.47	3.38	11.06
Agilent option 3	1	2.38	3.19	9.83
Agilent option 4	1	1.99	2.64	8.30
GeCKO (Broad)	?	8.73	16.00	NA
GeCKO (Competitor)	39	5.29	9.83	68.40
GeCKO (Competitor) expanded	204	6.00	11.95	333.00

Table 2. With <.01% missed guides, you can be sure the guides in your library will be present in your delivered library. The uniformity of our libraries has an average 90/10 ratio of 2.29, which is less than half that of our competitor's libraries (5.29).

Instructions to order GeCKOv2 Libraries

GeCKOv2 libraries are available for both mouse (G7554A) and human (G7555A) applications. Table 1 provides a summary of the libraries including the number of guides per gene, non-coding targets, and control sequences. Kits also include a control appropriate for the organism the library is designed for. If you require additional information, including the sequences of each component of the library please contact your local Agilent representative or technical support.

Ordering Information

	SureGuide GeCKOv2 CRISPR Libraries	SureGuide Amplified Custom CRISPR Libraries	SureGuide Unamplified Custom CRISPR Libraries
Part Numbers	G7553A - Human G7554A - Mouse	G7555A - Human (hU6 promoter)	G7555B - Any species
Library Format	Ready-to-package plasmid library	Ready-to-clone amplified DNA library	Ready-to-amplify DNA library
Delivery	Lentivirus	Designed for lentivirus, user choice	Users choice
Number of Guides	Human - 123,411; Mouse - 130,209	Up to 60,000	Up to 100,000
User Supplies	Lentivirus packaging, delivery, screening	Cloning, viral packaging, delivery screening	Amplification, cloning, viral packaging, delivery, screening
Sequence Verified	Yes	No	No
Quantity	200 ug of plasmid DNA split into A and B libraries	125 ng of linear, amplified, pooled library	10 pmol of linear, unamplified, pooled library
Also Included	N/A	N/A	Amplification kit
Custom Design Input	None	Up to 50 nt sequence for each guide	Complete sequence up to 200 nt
Control	Mal1-C	User designed	User designed

www.agilent.com/genomics/CRISPR

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