

CRISPR human sgRNA libraries

Individually cloned, sequenced & cultured / Comprehensive representation

The GeneHero™ CRISPR human single guide RNA (sgRNA) libraries are designed for large-scale functional screens for genes involved in biological processes of interest. For each targeted gene, a minimum of 2 barcoded sgRNAs targeting different regions are created, individually cloned into a dual-use (transfection or lentiviral transduction) vector, and sequence-verified to ensure efficient gene knockout and high quality.

We provide flexible delivery formats such as pooled lentiviral particles, transfection-ready plasmid DNA, or bacterial stocks. Custom CRISPR sgRNA libraries and individually arrayed sgRNAs are also available on request.

Catalog#	Library name	# of sgRNAs/genes
L01-LS03	Innate kinases & ubiquitin ligases	475/239
L02-LS03	Nuclear hormone receptors	236/118
L03-LS03	Tumor metastasis genes	114/57
L04-LS03	Oncogenes	576/288
L05-LS03	Tumor suppressor genes	462/231
L06-LS03	Protein kinases	1316/658
L07-LS03	Key genes in 50 pathways	278/139

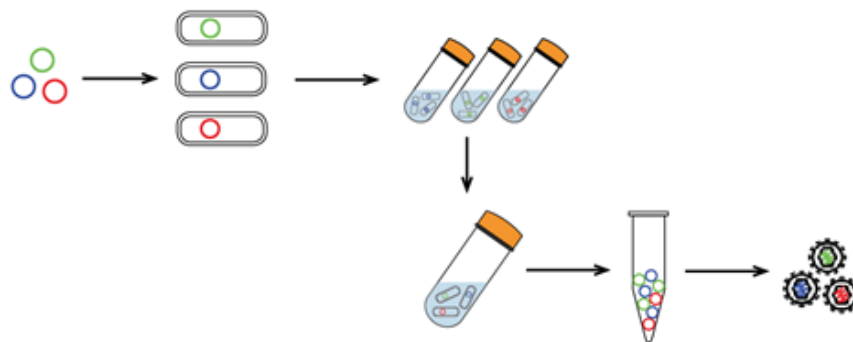


Figure 1. Pooling method of GeneHero™ human sgRNA libraries.

Applications :

- High-throughput knockout screening with many sgRNAs, either individually or in pools
- Novel drug target discovery
- Drug target validation
- Phenotypic screens
- Reporter assays

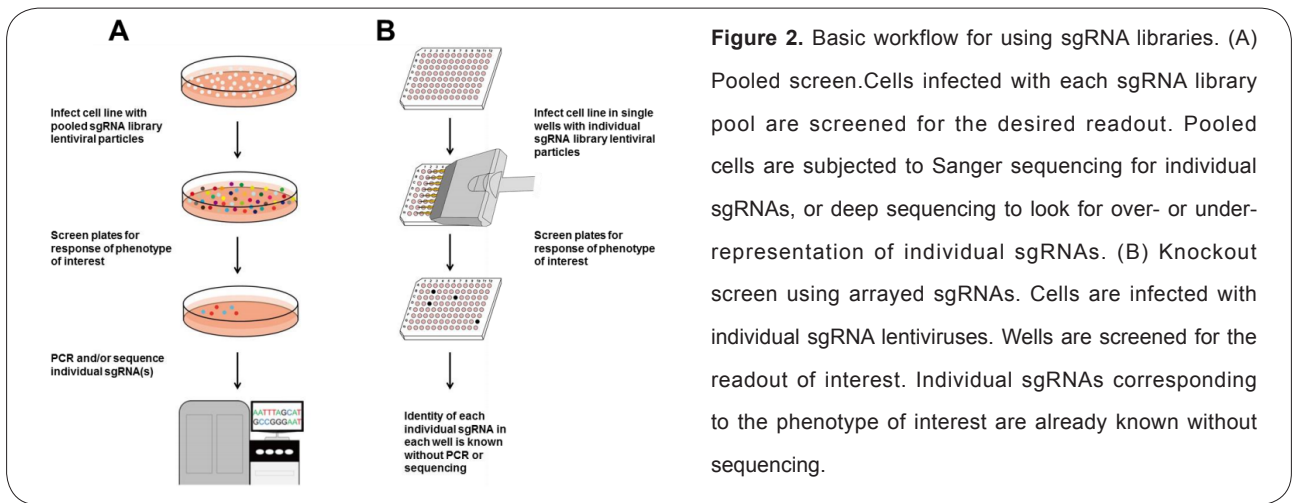


Figure 2. Basic workflow for using sgRNA libraries. (A) Pooled screen. Cells infected with each sgRNA library pool are screened for the desired readout. Pooled cells are subjected to Sanger sequencing for individual sgRNAs, or deep sequencing to look for over- or under-representation of individual sgRNAs. (B) Knockout screen using arrayed sgRNAs. Cells are infected with individual sgRNA lentiviruses. Wells are screened for the readout of interest. Individual sgRNAs corresponding to the phenotype of interest are already known without sequencing.

Full Support

GeneCopoeia also offers companion products and services for the GeneHero™ CRISPR sgRNA libraries.

Catalog number	Product
Cas9-expressing stable cell lines	
SL501	Human cell line NCI-H1299 stably expressing Cas9 from AAVS1 site, single clone
SL502	Human cell line HEK293T stably expressing Cas9 from AAVS1 site, single clone
More options	More than 70+ Cas9 cell lines available. Visit our website at: www.genecopoeia.com/product/cas9-cell-line/
Custom order	Custom Cas9-expressing stable cell line service
Cas9 clones	
CP-LvC9NU-01	Cas9 nuclease lentiviral expression clone (CMV / Neomycin)
CP-LvC9NU-02	Cas9 nuclease lentiviral expression clone (CMV / eGFP / Neomycin)
CP-LvC9NU-08	Cas9 nuclease lentiviral expression clone (EF1a / Puromycin)
More options	Visit our website at: www.genecopoeia.com/product/crispr-cas9/
Cas9 lentiviral particles	
LPP-CP-LvC9NU-01-100	Cas9 Nuclease Purified Lentifact™ Lentiviral Particles (100µl x 1 vial)(CMV / Neomycin)
LPP-CP-LvC9NU-02-100	Cas9 Nuclease Purified Lentifact™ Lentiviral Particles (100µl x 1 vial)(CMV / eGFP / Neomycin)
LPP-CP-LvC9NU-08-100	Cas9 Nuclease Purified Lentifact™ Lentiviral Particles (100µl x 1 vial) (EF1a / Puromycin)
More options	Visit our website at: www.genecopoeia.com/product/crispr-cas9/
Cas9 AAVS1 knock-in donor clones	
SH300	Cas9 AAVS1 knock-in donor clone (Puro selecton)
SH301	Cas9 AAVS1 knock-in donor clone (Hygro selecton)
SH302	Cas9 AAVS1 knock-in donor clone (Neo selecton)
Human AAVS1 safe harbor knock-in kits (CRISPR)	
SH004	GeneHero™ human AAVS1 safe harbor gene knock-in kit
SH000	GeneHero™ human AAVS1 safe harbor gene knock-in kit (without donor)

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