

## **CRISPR Human Genome Knockout Library**



The Human CRISPR Genome-Wide Pooled Lentiviral sgRNA Library is the latest tool for performing loss-of-function screens. The CRISPR/Cas9 system can be used for permanent gene knockout by using a combination of sgRNA and the Cas9 nuclease. Target cells are transduced with Cas9 lentivirus and selected to optimal Cas9 expression levels. The pooled sgRNA library is then transduced into cells so that each cell receives only one sgRNA construct. Loss-of-function screening followed by NGS of sgRNA sequences reveals which genes are involved in the biological process studied.

## Genome-Wide Knockout for Loss-of-Function Screening

- Based on Cellecta's popular Pooled Lentiviral shRNA Libraries
- 3 Modules, each covering approximately 6,500 genes
- Targeting a total of over 19,000 protein encoding genes
- Cas9 and sgRNA vectors contain different antibiotic resistance genes for easy selection
- Each gene is targeted by up to 8 sgRNA for a total of up to 55,000 sgRNA per module
- Built using solid support oligonucleotide synthesis method
- Available as pooled plasmid or packaged lentiviral libraries
- Tet-inducible and constitutive sgRNA expression available for custom CRISPR sgRNA libraries





