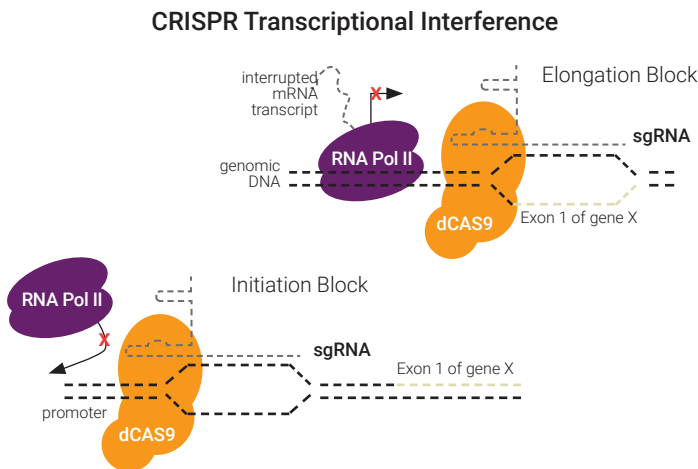


CRISPR Activation & Interference Libraries

CRISPR interference (CRISPRi)

CRISPR/Cas can be harnessed to suppress the expression of genes by targeting a region of active transcription with a guide RNA and using a Cas9 protein that has been deactivated and fused to a repressor domain. This has been demonstrated to be a viable approach to high throughput screening and provides a method for RNA-guided gene deactivation that complements both CRISPR knock-outs and RNAi.

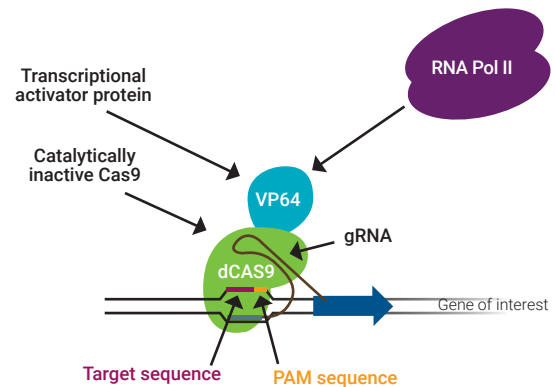


CRISPRi Libraries		
	HUMAN	MOUSE
# of Genes	18,730	19,846
# of Guides	205,648 guides total	212,376 guides total
Agilent p.n.	G9456A	G9457A
Thomas Scientific p.n.	CHM01R771	CHM01R785

CRISPR activation (CRISPRa)

Synthetic transcription factors have enabled a number of important advances in biomedical and basic scientific research. CRISPR/Cas can be used to turn on expression of target genes by using an inactivated Cas9 fused with a non-specific transcription inducing domain. CRISPRa has been demonstrated to work on a genome-wide scale as a simple, versatile approach for RNA-guided gene activation.

CRISPR Transcriptional Activation



CRISPRa Libraries		
	HUMAN	MOUSE
# of Genes	18,574	19,949
# of Guides	201,530 guides total	208,066 guides total
Agilent p.n.	G9456B	G9457B
Thomas Scientific p.n.	CHM01R772	CHM01R786

Custom SureGuide CRISPR Libraries for CRISPR a/i

- Ready-to-Amplify libraries, up to ~70,000 guides per library
- Ready-to-Clone libraries, up to ~70,000 guides per library

Interested in working with CRISPR but need a more focused panel of genes? Prevalidated CRISPR a/i subsets with gene targets from UCSF relevant to disease related research are also available as preconfigured libraries.

- CRISPR a/i Subsets**
- Kinases, Phosphatases, Drug Targets
 - Cancer and Apoptosis
 - Stress and Proteostasis
 - Mitochondria, Trafficking, Motility
 - Gene Expression
 - Membrane Proteins

Human CRISPRi-v2				
Sublibrary	Genes	Number of sgRNAs (non-targeting controls)	Agilent p.n.	Thomas Scientific p.n.
Kinases, Phosphatases, Drug Targets	2319	26,008 (500)	G9458C	CHM01R775
Cancer and Apoptosis	2917	32,567 (560)	G9458A	CHM01R773
Stress and Proteostasis	3094	33,546 (580)	G9458E	CHM01R777
Mitochondria, Trafficking, Motility	2220	24,488 (500)	G9458G	CHM01R779
Gene Expression	2293	25,140 (500)	G9458M	CHM01R784
Membrane Proteins	2419	26,250 (500)	G9458K	CHM01R782
Unassigned*	3650	40,108 (650)		
Genome-scale	18,730	205,648 (3790)	G9456A	CHM01R771

Human CRISPRa-v2				
Sublibrary	Genes	Number of sgRNAs (non-targeting controls)	Agilent p.n.	Thomas Scientific p.n.
Kinases, Phosphatases, Drug Targets	2321	25,988 (500)	G9458D	CHM01R776
Cancer and Apoptosis	2922	32,450 (560)	G9458B	CHM01R774
Stress and Proteostasis	3094	33,218 (580)	G9458F	CHM01R778
Mitochondria, Trafficking, Motility	2221	24,366 (500)	G9458H	CHM01R780
Gene Expression	2289	24,984 (500)	G9458J	CHM01R781
Membrane Proteins	2406	26,126 (500)	G9458L	CHM01R783
Unassigned*	3669	40,278 (650)		
Genome-scale	18,574	201,530 (3790)	G9456B	CHM01R772


Mouse CRISPRi-v2				
Sublibrary	Genes	Number of sgRNAs (non-targeting controls)	Agilent p.n.	Thomas Scientific p.n.
Kinases, Phosphatases, Drug Targets	2270	24,673 (500)	G9459C	CHM01R789
Cancer and Apoptosis	2858	30,871 (560)	G9459A	CHM01R787
Stress and Proteostasis	2801	29,892 (580)	G9459E	CHM01R791
Mitochondria, Trafficking, Motility	2100	22,517 (500)	G9459G	CHM01R793
Gene Expression	1918	20,634 (500)	G9459M	CHM01R798
Membrane Proteins	2111	22,395 (500)	G9459K	CHM01R782
Unassigned*	5948	63,428 (1200)		
Genome-scale	19,846	212,376 (4340)	G9457A	CHM01R785

Mouse CRISPRa-v2				
Sublibrary	Genes	Number of sgRNAs (non-targeting controls)	Agilent p.n.	Thomas Scientific p.n.
Kinases, Phosphatases, Drug Targets	2269	24,594 (500)	G9459D	CHM01R790
Cancer and Apoptosis	2857	30,755 (560)	G9459B	CHM01R788
Stress and Proteostasis	2797	29,620 (580)	G9459F	CHM01R792
Mitochondria, Trafficking, Motility	2100	22,474 (500)	G9459H	CHM01R794
Gene Expression	1916	20,576 (500)	G9459J	CHM01R795
Membrane Proteins	2105	22,377 (500)	G9459L	CHM01R797
Unassigned*	5898	62,978 (1200)		
Genome-scale	19,949	208,066 (4340)	G9457B	CHM01R786



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