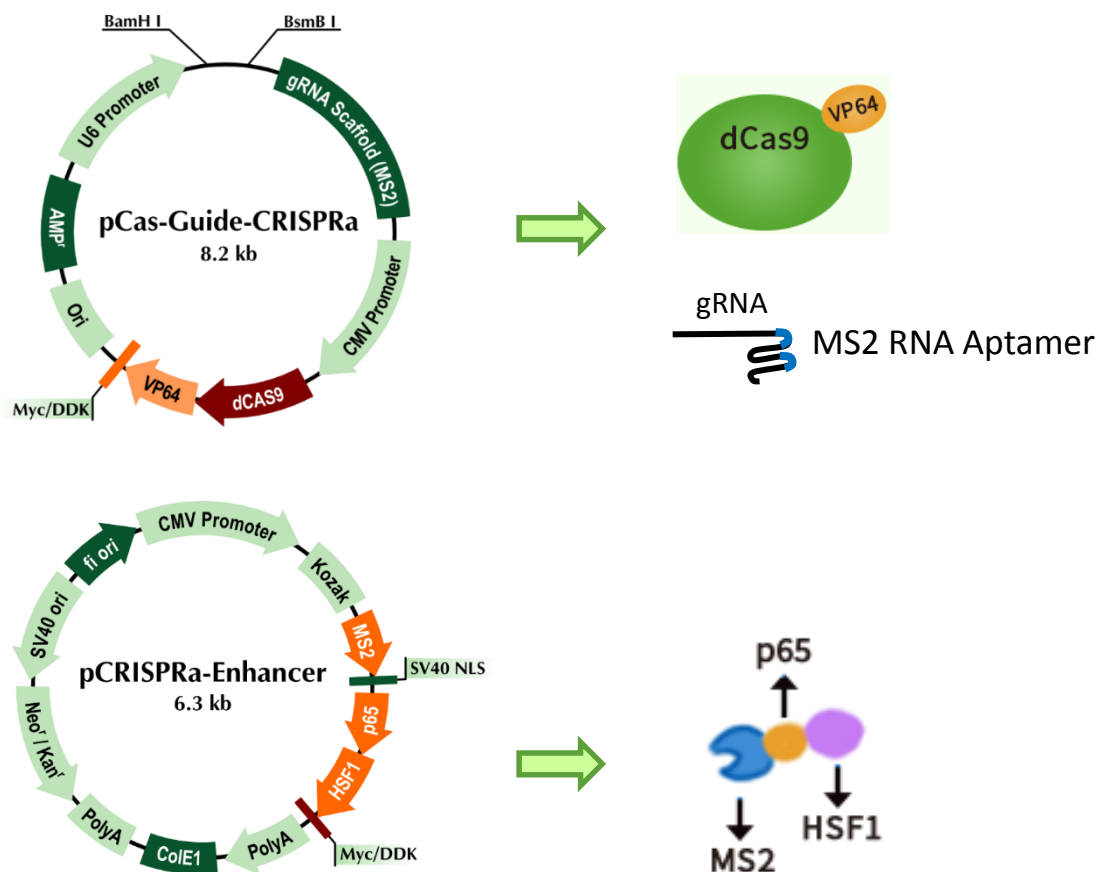
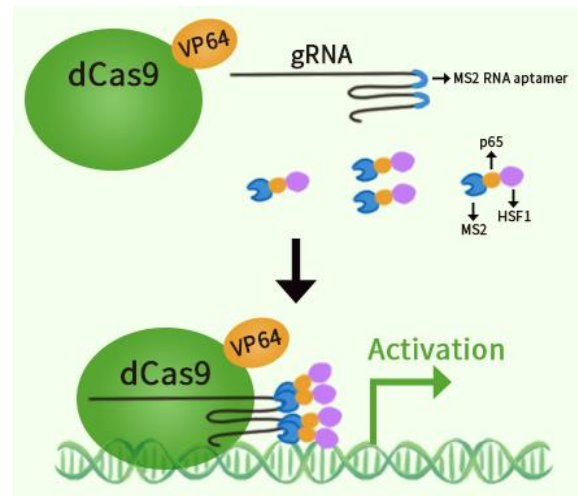


CRISPRa, CRISPRi - Gene Regulation

CRISPRa SAM System – Robust CRISPR Activation

- ✓ Robust gene activation up to thousandfold
- ✓ Synergistic activation with VP64, p65, and HSF1
- ✓ MS2 RNA aptamer in gRNA brings MS2-p65-HSF1 to dCas9-VP64
- ✓ Two vector system:
dCas9-VP64 & MS2-gRNA
MS2-p65-HSF1



CRISPRa, CRISPRi - Gene Regulation

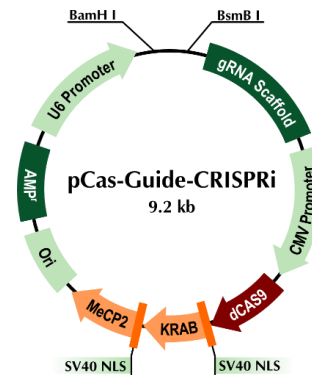
Genome-wide CRISPRa Kits Against Any Human and Mouse Genes

- ✓ Turn-key solution for activating endogenous genes
- ✓ Ready-to-use:
3 targeting gRNAs, 1 scramble control,
1 enhancer vector
- ✓ Alternative to gene overexpression
with [cDNA clones](#)

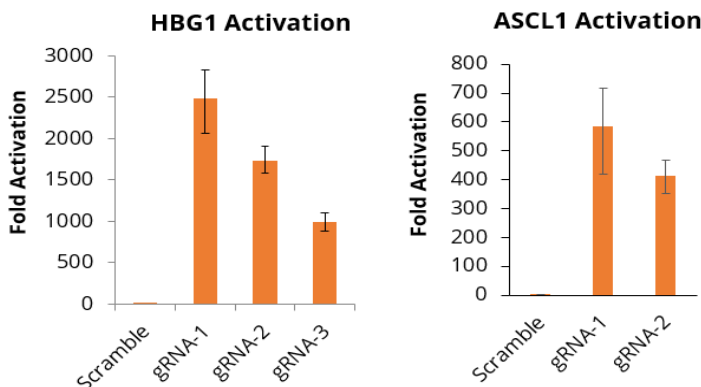


CRISPRi – CRISPR Interference

- dCas9 fused with KRAB-MeCP2
- Robust gene repression
- All-in-one vector:
gRNA cloning site and dCas9-KRAB-MeCP2

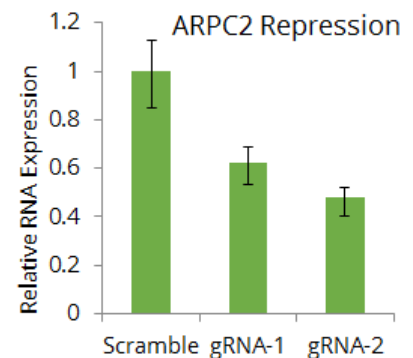


CRISPRa Robust Activation



Gene specific pCas-Guide-CRISPRa vector (encodes dCas9-VP64) and pCRISPRa-Enhancer (encodes MS2-p65-HSF1) were transfected into HEK293T cells. qPCR was performed to measure gene expression.

CRISPRi Repression



All-in-one CRISPRi vector containing gene specific gRNA and dCas9-KRAB-MeCP2 was transfected into HEK293T cells. qPCR was performed to measure mRNA expression.