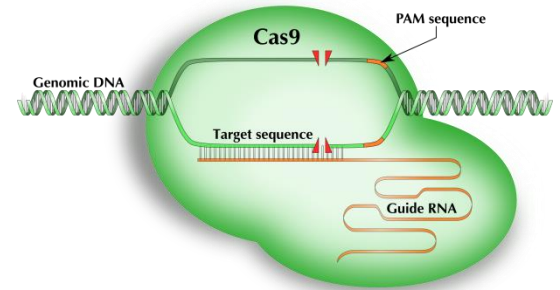


Genome Editing with CRISPR/Cas9

CRISPR/Cas9 is the cutting-edge RNA-guided genome editing tool, which is *versatile, simple and affordable*. Cas9 in complex with the guide RNA will lead to double-stranded break in a sequence-specific manner. Genome editing can be achieved via repair mechanism.

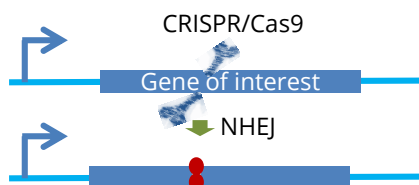


CRISPR/Cas9 Products
KN2.0 Gene knockout kits: ~50% bi-allelic knockout efficiency
CRISPR/Cas9 vectors (All-in-one, Lenti, Cas9)
Cas9 antibodies / Cas9 enzymes
AAVS1 / ROSA26 transgene insertion Expression in genomic safe location

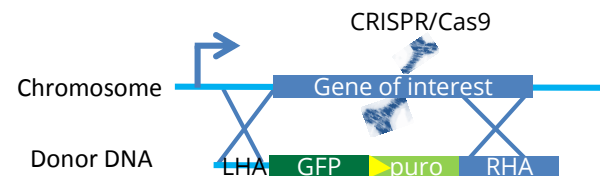
Custom Services
gRNA cloning service into CRISPR vectors \$175, sequenced and ready to use
Donor vector of your own design

Applications using CRISPR/Cas9 as a genome editing tool

1. Indels (no donor template DNA)

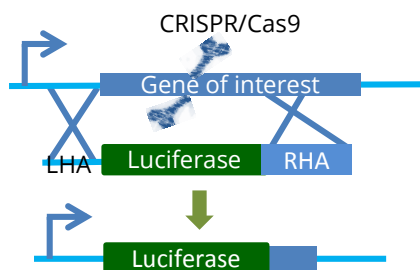


2. Gene knock-out with a reporter(s) knock-in



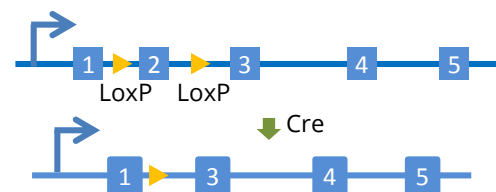
3. Native Promoter Study

Luciferase under the endogenous promoter



4. Conditional knockout

For essential genes or tissue-specific study inserting LoxP sites around the exon(s) to be knocked-out

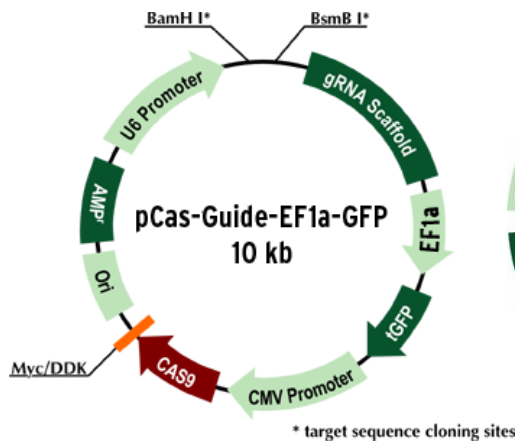


5. Specific mutations (with donor template DNA)

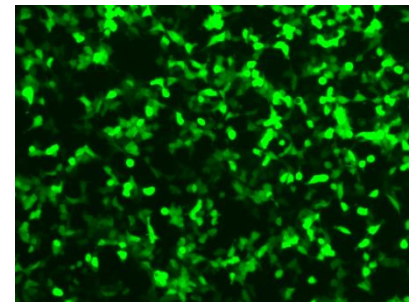
- SNPs—SNP associated disease, gene correction
- Desired deletions/insertions
- Tagging the endogenous genes

Genome Editing with CRISPR/Cas9

CRISPR/Cas9 All-in-one vectors



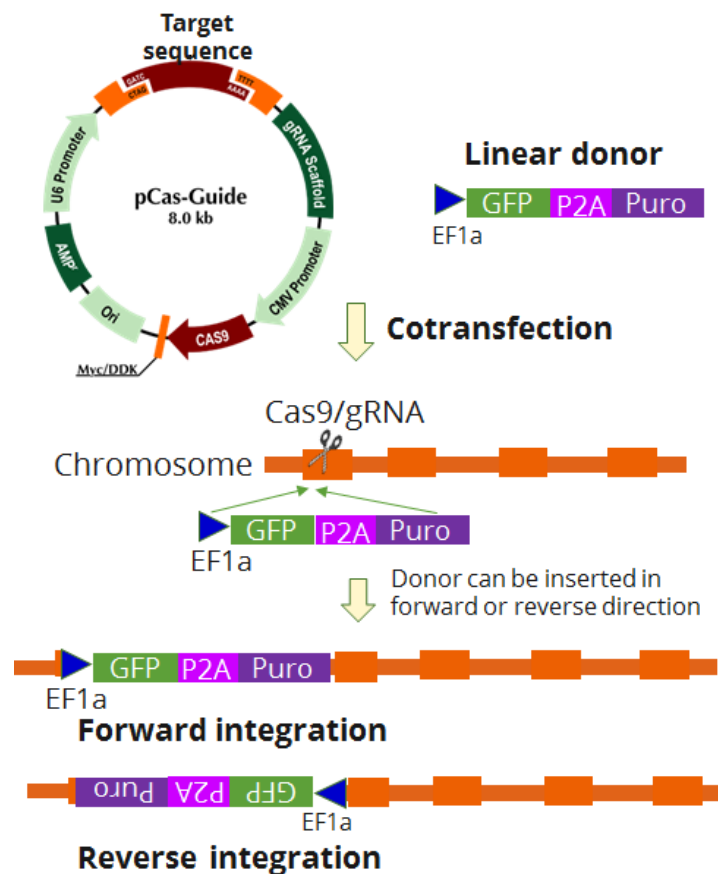
Cas9 Lenti Vector



pCas-Guide-EF1a-GFP was transfected into HEK293 cells. The fluorescent picture shows the expression of GFP.

More CRISPR vectors: <https://www.origene.com/products/vectors/crispr-vectors>

Scheme of Genome-editing knockout: KN2.0



CRISPR Video YouTube

