

CRISPR/Cas9

Editing | Knockout | Knockin | CRISPRa | CRISPRi

All You Need for CRISPR/Cas9-based Genome Engineering

The recent discovery of the type II prokaryotic CRISPR (Clustered Regularly Interspaced Short Palindromic Repeats) system, originally discovered in the bacterium *Streptococcus pyogenes* that works as a mechanism to defend against viruses and foreign DNA, has provided a revolutionary tool for targeted genome engineering with simple elegance.

The system uses a nuclease, CRISPR-associated protein 9 (Cas9), that complexes with small guide RNAs (gRNAs) to cleave DNA in a sequence-specific manner upstream of the protospacer adjacent motif (PAM) in any genomic location.

BioCat offers a comprehensive CRISPR/Cas9 genome engineering portfolio, including vector-based and Cas9 protein/gRNA-based systems. For screening projects lentiviral gRNA libraries and Cas9 expressing cell lines are provided.

Cas9 Proteins (Wildtype & Variants)

Cas9 Expression Vectors

Cas9 Activity Assays

Synthetic gRNA

gRNA Expression Vectors (Lenti/AAV)

HR Donor Vectors

Lentiviral gRNA Libraries

Cas9 Expressing Cell Lines

CRISPR Knockout Cell Lines

Custom Services

HR: Homologous recombination

CRISPRa: CRISPR activation

CRISPRi: CRISPR interference

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