

Services

- Custom Research & Development

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- Custom Production

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- Custom Formulation & Conjugation

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- GTOnco™ Immuno-Oncology Assay Services

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- Analytical Testing & Quality Control

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- CRISPR assisted Gene Editing Solutions

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- CRISPR assisted Cell Line Development

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- CRISPR related Delivery Agent Construction

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- CRISPR based Screening Solutions

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- Genome-Wide CRISPR Screening
- CRISPRa Screening
- CRISPRi Screening
- Single-Cell CRISPR Screening
- Custom CRISPR Screening
- Disease Modeling related Gene Editing
- Library Design through CRISPR
- Nuclease Activity Measurement

CRISPR Activation (CRISPRa) Screening Service

Introduction of CRISPR Activation (CRISPRa) Screening Service

Workflow of CRISPRa Screening Service

Inquiry Now

CRISPRa is an effective gene activation tool that enables targeted upregulation of endogenous genes without modifying the DNA sequence. Compared to conventional cDNA overexpression, CRISPRa activates genes at their native loci, maintaining natural regulation and isoform diversity. It also supports high-throughput screening to identify genes that impact key phenotypes like proliferation, differentiation, or drug response. At **Creative Biolabs**, we provide an all-inclusive CRISPRa screening service featuring premium sgRNA libraries, efficient lentiviral delivery systems, and advanced data analysis solutions, and deliver tailored, reliable results for your research goals.

Introduction of CRISPR Activation (CRISPRa) Screening Service

CRISPR Activation (CRISPRa) is an advanced gene regulation technique that enables the upregulation of endogenous gene expression without altering the DNA sequence. It employs a catalytically inactive Cas9 (dCas9) fused to transcriptional activators such as VP64 or p65, which are guided by sgRNAs to promoter regions to enhance transcription at native genomic loci. As a robust gain-of-function screening platform, CRISPRa allows researchers to investigate the biological roles of gene activation in key processes such as cell proliferation, immune response, differentiation, and drug resistance. Unlike traditional cDNA overexpression methods, CRISPRa activates genes in their natural chromatin context, maintaining native regulation and avoiding artifacts from artificial overexpression. By using a genome-wide CRISPRa library, thousands of genes can be systematically activated in a high-throughput manner. This enables the identification of genes whose upregulation affects specific phenotypes—such as drug sensitivity, cell viability, or immune modulation—thus uncovering critical regulators and potential therapeutic targets often overlooked by loss-of-function approaches.

Workflow of CRISPR Activation (CRISPRa) Screening Service

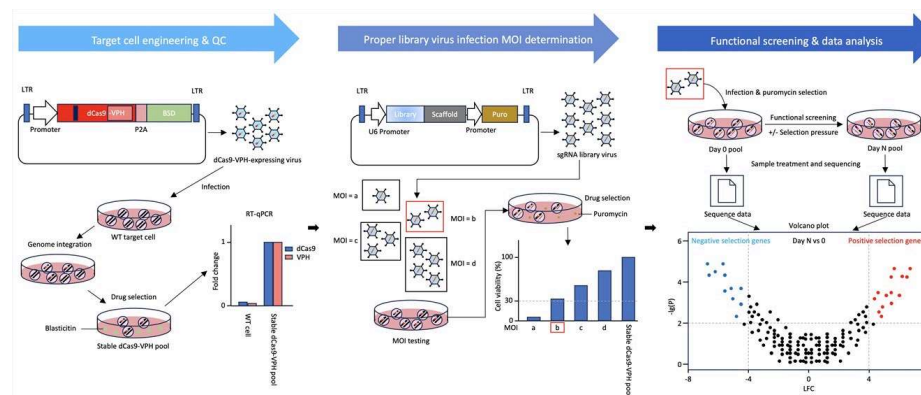


Fig. 1 Workflow of our CRISPRa screening service.

## Advantages of CRISPR Activation (CRISPRa) Screening Service

- **Refined Lentiviral Delivery for Stable Gene Activation** - Our optimized lentiviral system ensures efficient delivery of dCas9 fusion proteins and sgRNAs, enabling stable and effective gene activation across various cell types.
- **Customizable Screening Workflows** - We offer flexible CRISPRa screening options, from genome-wide to focused sub-libraries, tailored to diverse research designs and scientific objectives.
- **Comprehensive sgRNA Libraries for CRISPRa** - Our libraries cover promoter regions of most protein-coding genes, with 4–6 sgRNAs per gene to ensure consistent and efficient transcriptional activation.
- **Rigorous QC and Advanced Data Interpretation** - Every step is strictly quality-controlled, and our analysis pipeline provides accurate identification of activated genes and meaningful phenotype correlations.
- **Cost-Effective Solutions with Dedicated Support** - We offer competitive pricing and responsive scientific support, ensuring a smooth and efficient CRISPRa screening experience from start to finish.

## How CRISPR Activation (CRISPRa) Screening Service Can Assist Your Project

At Creative Biolabs, our CRISPRa screening service is powered by a carefully optimized and quality-controlled workflow, ensuring high accuracy and consistency at every stage—from sgRNA library preparation and lentiviral delivery to cell-based screening and in-depth data analysis. Every step is meticulously managed to achieve reliable gene activation and reproducible outcomes. Through genome-wide gene activation, our platform helps uncover key regulators that influence vital biological functions such as drug sensitivity, immune responses, cell growth, and differentiation.

Our advanced bioinformatics tools translate raw screening data into clear gene-phenotype relationships, revealing potential therapeutic targets and critical pathway components.

Whether your project focuses on functional genomics, target discovery, or mechanistic studies, fabulous CRISPRa screening service from **Creative Biolabs** delivers the insights you need to drive innovation. [Contact us](#) to discover how our customized CRISPRa solutions can empower your research goals.

### Related Sections

[Custom CRISPR  
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[Single-Cell CRISPR  
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[CRISPRi Screening](#)

[Genome-Wide CRISPR  
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