

# Resource Summary Report

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## CRISPRdirect

RRID:SCR\_018186

Type: Tool

### Proper Citation

CRISPRdirect (RRID:SCR\_018186)

### Resource Information

**URL:** <http://crispr.dbcls.jp/>

**Proper Citation:** CRISPRdirect (RRID:SCR\_018186)

**Description:** Software for designing CRISPR/Cas guide RNA with reduced off target sites. Used for rational design of CRISPR/Cas target. Web server for selecting rational CRISPR/Cas targets from input sequence. Server currently incorporates genomic sequences of human, mouse, rat, marmoset, pig, chicken, frog, zebrafish, Ciona, fruit fly, silkworm, Caenorhabditis elegans, Arabidopsis, rice, Sorghum and budding yeast.

**Resource Type:** production service resource, web service, software resource, data access protocol, analysis service resource, service resource

**Defining Citation:** [PMID:25414360](#)

**Keywords:** CRISPR/Cas guide RNA, reduced off target site, design of CRISPR/Cas target, selecting rational target, sequence, genomic sequence, RNA, bio.tools

**Funding:** Japan Science and Technology Agency ;  
Ministry of Education ;  
Culture ;  
Sports ;  
Science and Technology of Japan

**Availability:** Free, Freely available

**Resource Name:** CRISPRdirect

**Resource ID:** SCR\_018186

**Alternate IDs:** biotools:CRISPRdirect

**Alternate URLs:** <https://bio.tools/CRISPRdirect>

**Record Creation Time:** 20220129T080339+0000

**Record Last Update:** 20260808T190114+0000

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## Ratings and Alerts

No rating or validation information has been found for CRISPRdirect.

No alerts have been found for CRISPRdirect.

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## Data and Source Information

**Source:** [SciCrunch Registry](#)

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## Usage and Citation Metrics

We found 588 mentions in open access literature.

**Listed below are recent publications.** The full list is available at [ASWG](#) .

Takahashi G, et al. (2026) Initiation of asexual reproduction by the AP2/ERF gene GEMMIFER in Marchantia polymorpha. Current biology : CB, 36(9), 2413.

Lee J, et al. (2026) Modulating the strigolactone pathway to optimize tomato shoot branching for vertical farming. Journal of integrative plant biology, 68(1), 113.

Kelly AA, et al. (2026) Reducing the Sinapine Levels of Camelina sativa Seeds Through Targeted Genome Editing of REF1. Plant biotechnology journal, 24(3), 1839.

Noguchi A, et al. (2026) CAPN15 is a non-proteasomal, ubiquitin-directed calpain protease that regulates cell adhesion by cleaving E-cadherin. The Journal of biological chemistry, 302(1), 111034.

Matsumoto S, et al. (2026) Detection and classification of chromosomes with sister chromatid cohesion defects using object detection models. Scientific reports, 16(1).

Feng P, et al. (2026) cGAMP suppresses FTO expression to promote m6A modification and potentiate antitumor immunity. Cellular and molecular life sciences : CMLS, 83(1).

Charagh S, et al. (2026) Oryza sativa heavy metal ATPase (OsHMA) transporter-mediated cadmium uptake in rice: functional insights for low-Cd breeding. Food chemistry. Molecular sciences, 13, 100425.

Nambara T, et al. (2026) Interplay between DYRK1A dosage and aneuploidy-induced neuropathology in Down syndrome. Communications biology, 9(1).

Gluc M, et al. (2026) A Novel Eukaryotic Ribosome Factor Enables Translation Restart Following Cellular Dormancy. bioRxiv : the preprint server for biology.

Li Z, et al. (2026) IGF2BP3-dependent glutamine/BCAA metabolic rewiring rejuvenates aged human adipose-derived stem cells for enhanced tissue regeneration. *Cell discovery*, 12(1), 5.

Wang B, et al. (2026) TMPRSS2 is dispensable for lethal SARS-CoV-2 BA.5 infection in humanized hACE2 golden hamsters. *European journal of medical research*, 31(1), 309.

Han K, et al. (2026) A dual role for ER-Golgi cargo receptor LMAN1 in supporting CSFV replication and restraining RLR signaling. *Journal of virology*, 100(3), e0006926.

Kang J, et al. (2026) Mevalonate kinase represses anthocyanin biosynthesis via sucrose transporters and gibberellin synthesis pathways in arabidopsis. *Plant cell reports*, 45(7).

Hou P, et al. (2026) PBLD Orchestrates the STING-Mediated Antiviral Immune Response and Autoimmune Diseases. *Advanced science (Weinheim, Baden-Wurttemberg, Germany)*, 13(4), e14512.

Chen P, et al. (2026) *Bombyx mori* Jun gene is involved in endoreplication of silk gland cells by regulating S-phase cell cycle genes. *Journal of advanced research*, 82, 367.

Ono Y, et al. (2026) PSMD12 Overexpression Promotes Lung Adenocarcinoma Progression via Ubiquitin-Proteasome Pathway Dysregulation. *Cancer science*, 117(3), 644.

Kumar S, et al. (2026) Geminiviral-CR-gRNA expressed in cowpea efficiently edited MYMV and MYMIV genome to provide resistance against cowpea yellow mosaic disease without hampering plant growth and yield. *BMC plant biology*, 26(1).

Behera L, et al. (2026) An improved *Agrobacterium*-mediated transformation method for genome editing using CRISPR/Cas9 in elite indica rice (*Oryza sativa* L.). *BMC genomics*, 27(1).

Suzuki T, et al. (2026) Lysine lactylation regulates ATF4-mediated stress responses under glucose starvation in canine hemangiosarcoma. *Frontiers in veterinary science*, 13, 1734339.

Huang X, et al. (2026) Fungal oxidative stress tolerance depends on peroxiredoxin PrxA-mediated redox signaling to mitochondrial cytochrome c peroxidase Ccp1. *The Journal of biological chemistry*, 302(6), 113084.