

Resource Summary Report

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MAGeCK

RRID:SCR_025016

Type: Tool

Proper Citation

MAGeCK (RRID:SCR_025016)

Resource Information

URL: <https://sourceforge.net/p/mageck/wiki/Home/>

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Description: Software tool to identify important genes from genome-scale CRISPR-Cas9 screens. Used for prioritizing single-guide RNAs, genes and pathways in genome-scale CRISPR/Cas9 knockout screens.

Synonyms: Model-based Analysis of Genome-wide CRISPR-Cas9 Knockout

Resource Type: software application, software resource, data analysis software, data processing software

Defining Citation: [PMID:25476604](#)

Keywords: identify genes, genome scale CRISPR-Cas9 screens,

Funding: NIGMS R01 GM099409;
Dana-Farber Cancer Institute

Availability: Free, Available for download, Freely available

Resource Name: MAGeCK

Resource ID: SCR_025016

Alternate URLs: <https://github.com/liulab-dfci/MAGeCK>

License: 3-clause Berkeley Software Distribution

Record Creation Time: 20240221T003954+0000

Record Last Update: 20260729T044614+0000

Ratings and Alerts

No rating or validation information has been found for MAGeCK.

No alerts have been found for MAGeCK.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 182 mentions in open access literature.

Listed below are recent publications. The full list is available at [PRECISE-TBI](#) .

Lim K, et al. (2025) A novel human fetal lung-derived alveolar organoid model reveals mechanisms of surfactant protein C maturation relevant to interstitial lung disease. The EMBO journal, 44(3), 639.

Gray CN, et al. (2025) Integrator complex subunit 12 knockout overcomes a transcriptional block to HIV latency reversal. eLife, 13.

Zhang X, et al. (2025) Identification of SLC35A1 as an essential host factor for the transduction of multi-serotype recombinant adeno-associated virus (AAV) vectors. mBio, 16(1), e0326824.

Levi O, et al. (2025) Genome-wide CRISPRi screen and proteomic profiling identify key genes related to ferulic acid's antifungal activity. mBio, 16(10), e0190925.

Li H, et al. (2025) Genome-scale CRISPR screens identify PTGES3 as a direct modulator of androgen receptor function in advanced prostate cancer. Nature genetics, 57(12), 3027.

Liu B, et al. (2025) PKMYT1 kinase ameliorates cisplatin sensitivity in osteosarcoma. Signal transduction and targeted therapy, 10(1), 165.

Tan J, et al. (2025) Multimodal learning decodes the global binding landscape of chromatin-associated proteins. bioRxiv : the preprint server for biology.

Zhang W, et al. (2025) RFWD3 Reprograms Nucleotide Metabolism Through PHGDH to Induce Chemoresistance In Osteosarcoma. Advanced science (Weinheim, Baden-Wurttemberg, Germany), 12(16), e2410937.

Zhao H, et al. (2025) Targeting COPA to Enhance Erdafitinib Sensitivity in FGFR-Altered Bladder Cancer. Advanced science (Weinheim, Baden-Wurttemberg, Germany), 12(18), e2413209.

Zhou X, et al. (2025) Potentiating anti-tumor immunity by re-engaging immune synapse molecules. Cell reports. Medicine, 6(3), 101975.

Yu Y, et al. (2025) A Genome-Wide Synthetic Lethal Screen Identifies Spermidine Synthase as a Target to Enhance Erdafitinib Efficacy in FGFR-Mutant Bladder Cancer.

Cancer research, 85(12), 2288.

Gokbayrak B, et al. (2025) Identification of selective SWI/SNF dependencies in enzalutamide-resistant prostate cancer. *Communications biology*, 8(1), 169.

Zhang Z, et al. (2025) The identification of functional regions of MEK1 using CRISPR tiling screens. *Communications biology*, 8(1), 656.

Kumarasamy V, et al. (2025) Discrete vulnerability to pharmacological CDK2 inhibition is governed by heterogeneity of the cancer cell cycle. *Nature communications*, 16(1), 1476.

Zhao Z, et al. (2025) Boosting RNA nanotherapeutics with V-ATPase activating non-inflammatory lipid nanoparticles to treat chronic lung injury. *Nature communications*, 16(1), 6477.

Conti BA, et al. (2025) N6-methyladenosine in DNA promotes genome stability. *eLife*, 13.

Liu G, et al. (2025) Prdm12 governs an epigenetic checkpoint linking neuroimmune cross-talk to CD8+ T cell exhaustion-suppressed antitumor immunity. *Science advances*, 11(33), eadx9221.

Otero-Rosales M, et al. (2025) CDK7-targeted therapy effectively disrupts cell cycle progression and oncogenic signaling in head and neck cancer. *Signal transduction and targeted therapy*, 10(1), 363.

Kushchenko AS, et al. (2025) The p48 isoform of the PA2G4/EBP1/ITAF45 oncoprotein is required for the encephalomyocarditis virus IRES-driven translation initiation. *Nucleic acids research*, 53(22).

Vázquez Salgado AM, et al. (2025) In Vivo CRISPR Activation Screening Reveals Chromosome 1q Genes VPS72, GBA1, and MRPL9 Drive Hepatocellular Carcinoma. *Cellular and molecular gastroenterology and hepatology*, 101460.