

Resource Summary Report

Generated by PRECISE-TBI on Jul 29, 2026

MR-PRESSO

RRID:SCR_023697

Type: Tool

Proper Citation

MR-PRESSO (RRID:SCR_023697)

Resource Information

URL: <https://github.com/rondolab/MR-PRESSO>

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Description: Software R package for performing Mendelian randomization pleiotropy residual sum and outlier method.Used to identify horizontal pleiotropic outliers in multi instrument summary level MR testing.

Synonyms: Mendelian Randomization Pleiotropy RESidual Sum and Outlier

Resource Type: software toolkit, software resource

Defining Citation: [PMID:29686387](https://pubmed.ncbi.nlm.nih.gov/29686387/)

Keywords: Mendelian randomization, identify horizontal pleiotropic outliers, multi instrument summary level MR testing,

Funding: NIGMS R35 GM124836;
NHLBI R01 HL139865;
AstraZeneca ;
Goldfinch Bio ;
American Heart Association Cardiovascular Genome Phenome Discovery ;
NIMH 1R01 MH094469;
NIMH 1R01 MH107649;
NHGRI 5U01 HG009088

Availability: Free, Available for download, Freely available

Resource Name: MR-PRESSO

Resource ID: SCR_023697

Record Creation Time: 20230617T050225+0000

Record Last Update: 20260729T044557+0000

Ratings and Alerts

No rating or validation information has been found for MR-PRESSO.

No alerts have been found for MR-PRESSO.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 64 mentions in open access literature.

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

Xie H, et al. (2026) B2M regulates ELANE in pyroptosis to affect pancreatic cancer progression. Translational oncology, 63, 102613.

Fu L, et al. (2025) Insights Into Causal Effects of Genetically Proxied Lipids and Lipid-Modifying Drug Targets on Cardiometabolic Diseases. Journal of the American Heart Association, 14(3), e038857.

Yu S, et al. (2025) Serum Urate and Atrial Fibrillation: A Bidirectional Mendelian Randomization Study. Clinical cardiology, 48(1), e70089.

Xu X, et al. (2025) Exploring the complex relationship between systemic lupus erythematosus and coronavirus disease 2019: genetic insights and potential protective mechanisms. Journal of global health, 15, 04191.

Wei Zhang S, et al. (2025) Associations Between Myopia and Brain Volumes: An Observational and Genetic Analysis. Investigative ophthalmology & visual science, 66(6), 57.

Gu Y, et al. (2025) Polygenic scores for autism are associated with reduced neurite density in adults and children from the general population. Molecular psychiatry, 30(8), 3393.

Xu M, et al. (2025) Deciphering the causal relationships between plasma metabolites, peripheral cells, inflammatory factors and DLBCL for discovering novel therapeutic targets. Discover oncology, 16(1), 1968.

Xiang R, et al. (2025) Mapping the role of macro and micronutrients in bone mineral density: a comprehensive Mendelian randomization study. European journal of nutrition, 64(4), 156.

Quan L, et al. (2025) Genetic associations of plasma proteins and breast cancer identify potential therapeutic drug candidates. Communications biology, 8(1), 610.

Zhao B, et al. (2025) Plasma Insulin-Like Growth Factor-Binding Protein-2 Levels Predict Severe Septic Acute Kidney Injury: A Mendelian Randomization Analysis. *Cureus*, 17(4), e82209.

Qin M, et al. (2025) A multilayered genetic structure analysis between inflammatory bowel disease and bone density/osteoporosis. *PloS one*, 20(11), e0336775.

Huang Y, et al. (2025) Unraveling the Link Between Obesity and Keratoconus Risk Based on Genetic Evidence. *Translational vision science & technology*, 14(5), 20.

Zhou S, et al. (2025) Glucosamine supplementation contributes to reducing the risk of type 2 diabetes: Evidence from Mendelian randomization combined with a meta-analysis. *The Journal of international medical research*, 53(4), 3000605251334460.

Tang B, et al. (2025) Leveraging pleiotropic clustering to address high proportion correlated horizontal pleiotropy in Mendelian randomization studies. *Nature communications*, 16(1), 2817.

Amente LD, et al. (2025) A latent outcome variable approach for Mendelian randomization using the stochastic expectation maximization algorithm. *Human genetics*, 144(5), 559.

Zhou Y, et al. (2025) Casual associations between frailty and nine mental disorders: bidirectional Mendelian randomisation study. *BJPsych open*, 11(2), e28.

Chen Q, et al. (2025) Mendelian randomization analysis of gut microbiota-immune cell interactions in malignant neoplasm of nasopharynx. *AMB Express*, 15(1), 106.

Balbona JV, et al. (2025) Leveraging Genomic Data to Examine the Causal Impact of Alcohol, Tobacco, Cannabis, and Opioid Use on Biological and Cognitive Ageing. *Addiction biology*, 30(7), e70066.

Tong D, et al. (2025) A Bidirectional Mendelian Randomization Study of Causal Relationships Between Migraine and White-Matter Structural Connectivity. *Journal of pain research*, 18, 3429.

You D, et al. (2025) A genome-wide cross-trait analysis characterizes the shared genetic architecture between lung and gastrointestinal diseases. *Nature communications*, 16(1), 3032.