

Resource Summary Report

Generated by [PRECISE-TBI](#) on Sep 2, 2026

[PhaSepDB](#)

RRID:SCR_024964

Type: Tool

Proper Citation

PhaSepDB (RRID:SCR_024964)

Resource Information

URL: <http://db.phasep.pro/>

Proper Citation: PhaSepDB (RRID:SCR_024964)

Description: Provides a collection of manually curated phase separation (PS) proteins and Membraneless organelles (MLOs) related proteins. Annotated phase separation-related proteins with droplet states, co-phase separation partners and other experimental information.

Resource Type: data or information resource, database

Defining Citation: [DOI:10.1093/nar/gkac783](https://doi.org/10.1093/nar/gkac783)

Keywords: Membraneless organelles related proteins, collection of manually curated phase separation proteins, phase separation proteins,

Funding: National Key Research and Development Program of China ;
National Natural Science Foundation of China

Availability: Free, Freely available

Resource Name: PhaSepDB

Resource ID: SCR_024964

Record Creation Time: 20240201T171710+0000

Record Last Update: 20260829T183349+0000

Ratings and Alerts

No rating or validation information has been found for PhaSepDB.

No alerts have been found for PhaSepDB.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 36 mentions in open access literature.

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

Zafar A, et al. (2026) Molecular dynamics simulations of intrinsically disordered protein regions enable biophysical interpretation of variant-effect predictors. HGG advances, 7(3), 100618.

You K, et al. (2026) PhaSepDB 3.0: a comprehensive knowledgebase of phase separation-related proteins from AI-assisted curation. Nucleic acids research, 54(D1), D445.

Loh D, et al. (2026) Multiaxial Biophysical Control of Oncogenic Phase Separation by Indoleamines: A Proof-of-Concept Synthesis of Landscape-Level Regulation. Journal of pineal research, 78(4), e70156.

Zafar A, et al. (2025) Molecular dynamics simulations of intrinsically disordered protein regions enable biophysical interpretation of variant effect predictors. bioRxiv : the preprint server for biology.

Lim CM, et al. (2025) Organization of the Proteostasis Network of Membraneless Organelles. Advanced science (Weinheim, Baden-Wurttemberg, Germany), 12(33), e00233.

Li M, et al. (2025) WDR3 undergoes phase separation to mediate the therapeutic mechanism of Nilotinib against osteosarcoma. Journal of experimental & clinical cancer research : CR, 44(1), 201.

Pintado-Grima C, et al. (2025) Comprehensive protein datasets and benchmarking for liquid-liquid phase separation studies. Genome biology, 26(1), 198.

Guo Y, et al. (2025) The role of the MYL12A liquid-liquid phase separation in neutrophil improves the prognosis of acute respiratory distress syndrome: a multi-omics analysis. Frontiers in immunology, 16, 1662680.

Zhang M, et al. (2025) Phase Separation of PHLDB2 Drives EMT and Tumor Progression in Triple-Negative Breast Cancer. Cancer medicine, 14(23), e71308.

Lu H, et al. (2025) Liquid-liquid phase separation-related genes in the immune microenvironment and diagnosis of focal segmental glomerulosclerosis and minimal change disease. Renal failure, 47(1), 2573857.

Jia Y, et al. (2025) A phase separation-related gene signature for prognosis prediction and immunotherapy response evaluation in gastric cancer with targeted natural compound discovery. Discover oncology, 16(1), 1393.

Kong M, et al. (2025) Leveraging diverse liquid-liquid phase separation patterns to predict the prognosis and immunotherapy of pediatric acute myeloid leukemia. *BMC cancer*, 25(1), 1326.

Zhang B, et al. (2025) Downregulation of PGK1 promotes lipid peroxidation and suppresses proliferation in cervical cancer revealed by liquid-liquid phase separation-related gene signature. *BMC cancer*, 25(1), 1269.

Wen X, et al. (2025) Liquid-liquid phase separation in gastric cancer: identifying novel biomarkers and therapeutic targets through gene signature analysis. *Frontiers in immunology*, 16, 1620390.

Qu M, et al. (2024) Multiple roles of arsenic compounds in phase separation and membraneless organelles formation determine their therapeutic efficacy in tumors. *Journal of pharmaceutical analysis*, 14(8), 100957.

Hou S, et al. (2024) Machine learning predictor PSPire screens for phase-separating proteins lacking intrinsically disordered regions. *Nature communications*, 15(1), 2147.

Li X, et al. (2024) Role of liquid-liquid phase separation in cancer: Mechanisms and therapeutic implications. *Cancer innovation*, 3(5), e144.

Qiu C, et al. (2024) A Six-Gene Signature Related to Liquid-Liquid Phase Separation for Diagnosis of Alzheimer's Disease. *Actas espanolas de psiquiatria*, 52(6), 759.

Li Y, et al. (2024) Membraneless organelles in health and disease: exploring the molecular basis, physiological roles and pathological implications. *Signal transduction and targeted therapy*, 9(1), 305.

Lv L, et al. (2024) Three Liquid-Liquid Phase Separation-Related Genes Associated with Prognosis in Glioma. *Pharmacogenomics and personalized medicine*, 17, 171.