

Resource Summary Report

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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: 20260729T044615+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 20 mentions in open access literature.

Listed below are recent publications. The full list is available at [kravitz2](#) .

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.

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

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.

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

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.

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.

Maneix L, et al. (2024) Cyclophilin A supports translation of intrinsically disordered proteins and affects haematopoietic stem cell ageing. *Nature cell biology*, 26(4), 593.

Frank M, et al. (2024) Leveraging a large language model to predict protein phase transition: A physical, multiscale, and interpretable approach. *Proceedings of the National Academy of Sciences of the United States of America*, 121(33), e2320510121.

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.

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

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.

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.

Liu Q, et al. (2024) Liquid-liquid phase separation in plants: Advances and perspectives from model species to crops. *Plant communications*, 5(1), 100663.

Feng M, et al. (2024) Decoding Missense Variants by Incorporating Phase Separation via Machine Learning. *Nature communications*, 15(1), 8279.

Sun J, et al. (2024) Bioinformatic approaches of liquid-liquid phase separation in human disease. *Chinese medical journal*, 137(16), 1912.

Qiu J, et al. (2024) Utilizing Liquid-liquid phase separation-related lncRNAs to predict the prognosis and treatment response of PCa. *Discover oncology*, 15(1), 352.

Chen S, et al. (2023) Screening Linear and Circular RNA Transcripts from Stress Granules. *Genomics, proteomics & bioinformatics*, 21(4), 886.

Hou C, et al. (2023) PhaSepDB in 2022: annotating phase separation-related proteins with droplet states, co-phase separation partners and other experimental information. *Nucleic acids research*, 51(D1), D460.