

Resource Summary Report

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Assisted Model Building with Energy Refinement (AMBER)

RRID:SCR_014230

Type: Tool

Proper Citation

Assisted Model Building with Energy Refinement (AMBER) (RRID:SCR_014230)

Resource Information

URL: <http://ambermd.org/>

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Description: Software package of molecular simulation programs. It is distributed into AmberTools15 and Amber14. AmberTools15 is a software package which can carry out complete molecular dynamics simulations with either explicit water or generalized Born solvent models. It is distributed in source code format and must be compiled in order to be used. Amber14 builds on AmberTools15 by adding the pmemd program, which provides better performance on multiple CPUs and dramatic speed improvements on GPUs compared to sander (molecular dynamics). GPU info, manuals, and tutorials are available on the website.

Abbreviations: AMBER

Synonyms: Assisted Model Building with Energy Refinement

Resource Type: simulation software, software application, software resource, standalone software

Keywords: molecular simulation, simulation software, software package, molecular dynamics, pmemd, sander, bio.tools

Availability: Acknowledgement requested

Resource Name: Assisted Model Building with Energy Refinement (AMBER)

Resource ID: SCR_014230

Alternate IDs: biotools:amber

Alternate URLs: <https://bio.tools/amber>

License: Licenses vary depending on the type of user purchasing the AMBER license

Record Creation Time: 20220129T080319+0000

Record Last Update: 20260905T133048+0000

Ratings and Alerts

No rating or validation information has been found for Assisted Model Building with Energy Refinement (AMBER).

No alerts have been found for Assisted Model Building with Energy Refinement (AMBER).

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 4081 mentions in open access literature.

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

Veeckmans G, et al. (2026) Ferroptosis inhibition enhances liver and lung graft function. *Cell*, 189(13), 3991.

Huang J, et al. (2026) Cryo-EM structures of antibodies elicited by germline-targeting HIV MPER epitope scaffolds. *Cell reports*, 45(1), 116818.

Shi R, et al. (2026) Tumor-intrinsic FDFT1 determines coordinated macrophage anti-tumor immunity. *Developmental cell*, 61(6), 1238.

Dalilah Y, et al. (2026) Site-specific evaluation of mutation-based mimics of histone glycation in the nucleosome. *Frontiers in molecular biosciences*, 13, 1838713.

Zhang W, et al. (2026) Bisecting ?GlcNAc: MA'AT analysis of ¹³C-labeled oligosaccharides containing ?GlcNAc-(1?4)-?Man O-glycosidic linkages. *The Journal of biological chemistry*, 302(3), 111108.

Li J, et al. (2026) Astragaloside IV targets TUBB4B to inhibit proliferation and promote apoptosis of pituitary tumor cells via the STMN1/ERK pathway. *International journal of molecular medicine*, 57(6).

Obakachi VA, et al. (2026) A dynamic scapping workflow for RTK domains: computational modeling of natural products as dual modulators of EGFR and VEGFR signaling in breast cancer. *Molecular diversity*, 30(1), 1459.

- Yang M, et al. (2026) Dihydroalterperyleneol from endophytic fungus *Alternaria semiverrucosa* and its antitumour activity uncovered by transcriptome analysis, molecular docking and molecular dynamics simulations. *Molecular medicine reports*, 33(1).
- Moetlediwa MT, et al. (2026) Identification of Enhanced Cyclooxygenase-2 (COX-2) Inhibitors Beyond Curcumin Through Virtual Screening to Target Inflammation-Related Metabolic Complications. *International journal of molecular sciences*, 27(4).
- Di Nardo M, et al. (2026) Mutation type-specific transcriptomic signatures and readthrough therapy rescue in SMC1A-related developmental and epileptic encephalopathy. *Epilepsia*, 67(6), 3185.
- Abdullah M, et al. (2026) Neuropeptide and cytokines expression in long COVID-19 related neuropsychological sequelae: insights into NK1R-mediated neuroinflammation and in silico therapeutic targeting. *Frontiers in cellular neuroscience*, 20, 1763029.
- Lin H, et al. (2026) A Comparative Review of Artificial Intelligence Applications in Small Molecule Versus Peptide Drug Discovery. *International journal of molecular sciences*, 27(7).
- Kidoikhammouan S, et al. (2026) Integrated transcriptomic and molecular docking analysis identifies Rhotekin 2 as a promising therapeutic target for overcoming gemcitabine resistance in cholangiocarcinoma. *Biomedical reports*, 24(5), 52.
- González-Bertolín B, et al. (2026) De novo genome assembly and annotation of *Gnathostoma spinigerum*. *Parasites & vectors*, 19(1).
- Shao Q, et al. (2026) MutexaGPT: An Intuition-to-Design Translator for Physics-based Enzyme Engineering. *Research square*.
- Kearns FL, et al. (2026) D614G reshapes allosteric networks and opening mechanisms of SARS-CoV-2 spikes. *Proceedings of the National Academy of Sciences of the United States of America*, 123(19), e2504793123.
- Abd-Elatef EA, et al. (2026) Comparative insecticidal efficacy and biochemical impact of nano-encapsulated citronella and geranium essential oils against *Spodoptera littoralis* (Lepidoptera: Noctuidae). *Scientific reports*, 16(1).
- Gladysheva AV, et al. (2026) Solution Structure of Nucleoprotein Domain 1 from the Emerging Yezo Virus. *International journal of molecular sciences*, 27(12).
- Bangaru S, et al. (2025) Structural serology of polyclonal antibody responses to mRNA-1273 and NVX-CoV2373 COVID-19 vaccines. *Cell reports*, 44(7), 115986.
- Li Z, et al. (2025) Phased high-quality genome of the gymnosperm Himalayan Yew assists in paclitaxel pathway exploration. *GigaScience*, 14.