

Resource Summary Report

Generated by [RRID](#) on Sep 10, 2026

Frealign

RRID:SCR_016733

Type: Tool

Proper Citation

Frealign (RRID:SCR_016733)

Resource Information

URL: <http://grigoriefflab.janelia.org/frealign>

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Description: Software tool for high-resolution refinement of 3D reconstructions from cryo-EM images of single particles. Used to process electron microscope images of single molecules and complexes to obtain reconstructions at the highest possible resolution.

Synonyms: FrealignX

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

Defining Citation: [PMID:27572728](#)

Availability: Free, Available for download

Resource Name: Frealign

Resource ID: SCR_016733

License: Janelia Farm Research Campus Software Copyright 1.1

Record Creation Time: 20220129T080332+0000

Record Last Update: 20260905T132813+0000

Ratings and Alerts

No rating or validation information has been found for Frealign.

No alerts have been found for Frealign.

Data and Source Information

Usage and Citation Metrics

We found 13 mentions in open access literature.

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

Kieuvongngam V, et al. (2020) Structural basis of substrate recognition by a polypeptide processing and secretion transporter. eLife, 9.

Li F, et al. (2020) Cryo-EM structure of VASH1-SVBP bound to microtubules. eLife, 9.

Tao X, et al. (2019) Cryo-EM structure of the KvAP channel reveals a non-domain-swapped voltage sensor topology. eLife, 8.

Ma M, et al. (2019) Structure of the Decorated Ciliary Doublet Microtubule. Cell, 179(4), 909.

Tao X, et al. (2019) Molecular structures of the human Slo1 K⁺ channel in complex with ? 4. eLife, 8.

Borst AJ, et al. (2018) Germline VRC01 antibody recognition of a modified clade C HIV-1 envelope trimer and a glycosylated HIV-1 gp120 core. eLife, 7.

Johnson ZL, et al. (2018) ATP Binding Enables Substrate Release from Multidrug Resistance Protein 1. Cell, 172(1-2), 81.

Ti SC, et al. (2018) Human ?-Tubulin Isoforms Can Regulate Microtubule Protofilament Number and Stability. Developmental cell, 47(2), 175.

Chaaban S, et al. (2018) The Structure and Dynamics of C. elegans Tubulin Reveals the Mechanistic Basis of Microtubule Growth. Developmental cell, 47(2), 191.

Chen Z, et al. (2018) Structural Insights into Mdn1, an Essential AAA Protein Required for Ribosome Biogenesis. Cell, 175(3), 822.

Martin GM, et al. (2017) Anti-diabetic drug binding site in a mammalian KATP channel revealed by Cryo-EM. eLife, 6.

Davis JH, et al. (2016) Modular Assembly of the Bacterial Large Ribosomal Subunit. Cell, 167(6), 1610.

Grigorieff N, et al. (2016) Frealign: An Exploratory Tool for Single-Particle Cryo-EM. Methods in enzymology, 579, 191.