

Resource Summary Report

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KymoButler

RRID:SCR_021717

Type: Tool

Proper Citation

KymoButler (RRID:SCR_021717)

Resource Information

URL: <https://github.com/alexlib/KymoButler-1>

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Description: Software tool as deep learning software for automated kymograph analysis. Uses artificial intelligence to trace lines in kymograph and extract information about particle movement. Speeds up analysis of kymographs by between 50 and 250 times, and comparisons show that it is as reliable as manual analysis.

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

Defining Citation: [PMID:31405451](#)

Keywords: automated kymograph analysis, kymograph, particle movement

Funding: Biotechnology and Biological Sciences Research Council ;
European Research Council ;
Herchel Smith Foundation ;
Isaac Newton Trust ;
Wellcome Trust

Availability: Free, Available for download, Freely available

Resource Name: KymoButler

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Alternate URLs: <https://github.com/elifesciences-publications/KymoButler>,
<https://gitlab.com/deepmirror/kymobutler>,
<https://www.wolframcloud.com/objects/deepmirror/Projects/KymoButler/KymoButlerForm>

License: GNU General Public License v3.0

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Record Last Update: 20260912T200000+0000

Ratings and Alerts

No rating or validation information has been found for KymoButler.

No alerts have been found for KymoButler.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 7 mentions in open access literature.

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

Harman RM, et al. (2024) The mammosphere-derived epithelial cell secretome modulates neutrophil functions in the bovine model. *Frontiers in immunology*, 15, 1367432.

Konietzny A, et al. (2024) Efficient axonal transport of endolysosomes relies on the balanced ratio of microtubule tyrosination and detyrosination. *Journal of cell science*, 137(8).

Hoermayer L, et al. (2024) Mechanical forces in plant tissue matrix orient cell divisions via microtubule stabilization. *Developmental cell*, 59(10), 1333.

Wong HH, et al. (2024) Synapse-specific burst coding sustained by local axonal translation. *Neuron*, 112(2), 264.

Digilio L, et al. (2023) Quantifying Single and Dual Channel Live Imaging Data: Kymograph Analysis of Organelle Motility in Neurons. *Bio-protocol*, 13(10), e4675.

Baro L, et al. (2023) APC-driven actin nucleation powers collective cell dynamics in colorectal cancer cells. *iScience*, 26(5), 106583.

Holt JR, et al. (2021) Spatiotemporal dynamics of PIEZO1 localization controls keratinocyte migration during wound healing. *eLife*, 10.