

Resource Summary Report

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FRETBursts

RRID:SCR_016898

Type: Tool

Proper Citation

FRETBursts (RRID:SCR_016898)

Resource Information

URL: <https://github.com/OpenSMFS/FRETBursts>

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Description: Software for burst analysis of freely diffusing single-molecule Förster Resonance Energy Transfer (smFRET) experiments to study cellular processes at the molecular scale. Used for single and multi-spot single-molecule FRET (smFRET) data.

Abbreviations: FRETBursts

Synonyms: Förster Resonance Energy Transfer Bursts, FRETBursts

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

Defining Citation: [PMID:27532626](#)

Keywords: freely, diffusing, single, molecule, FRET, smFRET, cellular, process, intermolecular, interaction, conformational, change, biomacromolecule, data, bio.tools

Funding: NIGMS R01 GM069709;
NIGMS R01 GM95904

Availability: Free, Available for download, Freely available

Resource Name: FRETBursts

Resource ID: SCR_016898

Alternate IDs: biotools:fretbursts

Alternate URLs: <https://opensmfs.github.io/FRETBursts/>, <https://bio.tools/fretbursts>

License: GNU GPL

Record Creation Time: 20220129T080332+0000

Record Last Update: 20260905T132815+0000

Ratings and Alerts

No rating or validation information has been found for FRETBursts.

No alerts have been found for FRETBursts.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 3 mentions in open access literature.

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

Nguyen DD, et al. (2026) Coincident Fluorescence-Burst Analysis of Actin Cargo Molecules in Secreted Single Diffusing Extracellular Vesicles From Human Induced Pluripotent Stem Cells. Advanced science (Weinheim, Baden-Wurttemberg, Germany), 13(13), e14421.

Yanas A, et al. (2024) RNA helicases DDX3X and DDX3Y form nanometer-scale RNA-protein clusters that support catalytic activity. Current biology : CB, 34(24), 5714.

Chio US, et al. (2019) A Chaperone Lid Ensures Efficient and Privileged Client Transfer during Tail-Anchored Protein Targeting. Cell reports, 26(1), 37.