

Resource Summary Report

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proTRAC

RRID:SCR_012078

Type: Tool

Proper Citation

proTRAC (RRID:SCR_012078)

Resource Information

URL: <http://sourceforge.net/projects/protrac/>

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Description: A software which detects and analyses piRNA clusters based on quantifiable deviations from a hypothetical uniform distribution regarding the decisive piRNA cluster characteristics.

Synonyms: probabilistic TRacking and Analysis of Clusters

Resource Type: software resource

Defining Citation: [PMID:22233380](#)

Keywords: standalone software, perl

Availability: Creative Commons License

Resource Name: proTRAC

Resource ID: SCR_012078

Alternate IDs: OMICS_04874

Record Creation Time: 20220129T080308+0000

Record Last Update: 20260815T182445+0000

Ratings and Alerts

No rating or validation information has been found for proTRAC.

No alerts have been found for proTRAC.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 28 mentions in open access literature.

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

Moritoh M, et al. (2026) Flamenco plasticity tunes somatic piRNAs and rewires isoforms, with implications for heritable transposon spread. Life science alliance, 9(7).

Xiang X, et al. (2026) A mammalian-like piRNA pathway in Axolotl reveals the origins of piRNA-directed DNA methylation. The EMBO journal, 45(6), 1933.

Casas E, et al. (2025) Genetic polymorphisms lead to major, locus-specific, variation in piRNA production in mouse. The EMBO journal, 44(14), 4104.

Bergman A, et al. (2025) Limited impact of the siRNA pathway on transposable element expression in Aedes aegypti. BMC biology, 23(1), 130.

Huang S, et al. (2024) Transcriptional landscape of small non-coding RNAs reveals diversity of categories and functions in molluscs. RNA biology, 21(1), 1.

Wierzbicki F, et al. (2023) The composition of piRNA clusters in Drosophila melanogaster deviates from expectations under the trap model. BMC biology, 21(1), 224.

Signor S, et al. (2023) Rapid evolutionary diversification of the flamenco locus across simulans clade Drosophila species. PLoS genetics, 19(8), e1010914.

Teefy BB, et al. (2023) Dynamic regulation of gonadal transposon control across the lifespan of the naturally short-lived African turquoise killifish. Genome research, 33(1), 141.

Bodelón A, et al. (2023) Impact of Heat Stress on Transposable Element Expression and Derived Small RNAs in Drosophila subobscura. Genome biology and evolution, 15(11).

van Lopik J, et al. (2023) Unistrand piRNA clusters are an evolutionarily conserved mechanism to suppress endogenous retroviruses across the Drosophila genus. Nature communications, 14(1), 7337.

Martín L, et al. (2021) Altered non-coding RNA expression profile in F1 progeny 1 year after parental irradiation is linked to adverse effects in zebrafish. Scientific reports, 11(1), 4142.

Ishino K, et al. (2021) Hamster PIWI proteins bind to piRNAs with stage-specific size variations during oocyte maturation. Nucleic acids research, 49(5), 2700.

Waiho K, et al. (2020) Comparative profiling of ovarian and testicular piRNAs in the mud crab Scylla paramamosain. Genomics, 112(1), 323.

- Queiroz FR, et al. (2020) Deep sequencing of small RNAs reveals the repertoire of miRNAs and piRNAs in *Biomphalaria glabrata*. *Memorias do Instituto Oswaldo Cruz*, 115, e190498.
- Tan M, et al. (2020) PIWIL3 Forms a Complex with TDRKH in Mammalian Oocytes. *Cells*, 9(6).
- Shamimuzzaman M, et al. (2019) Genome-wide profiling of piRNAs in the whitefly *Bemisia tabaci* reveals cluster distribution and association with begomovirus transmission. *PloS one*, 14(3), e0213149.
- Gòdia M, et al. (2019) A RNA-Seq Analysis to Describe the Boar Sperm Transcriptome and Its Seasonal Changes. *Frontiers in genetics*, 10, 299.
- Fromm B, et al. (2019) Evolutionary Implications of the microRNA- and piRNA Complement of *Lepidodermella squamata* (Gastrotricha). *Non-coding RNA*, 5(1).
- Yang Q, et al. (2019) Single-cell CAS-seq reveals a class of short PIWI-interacting RNAs in human oocytes. *Nature communications*, 10(1), 3389.
- Chang KW, et al. (2018) Stage-dependent piRNAs in chicken implicated roles in modulating male germ cell development. *BMC genomics*, 19(1), 425.