

Resource Summary Report

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Bowtie 2

RRID:SCR_016368

Type: Tool

Proper Citation

Bowtie 2 (RRID:SCR_016368)

Resource Information

URL: <http://bowtie-bio.sourceforge.net/bowtie2/index.shtml>

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Description: Ultrafast and memory efficient tool for aligning sequencing reads to long reference sequences. Supports gapped, local, and paired end alignment modes. More suited to finding longer, gapped alignments in comparison with original Bowtie method.

Synonyms: , bowtie 2, bowtie2 v 2.2.3

Resource Type: image analysis software, data analysis software, alignment software, software application, software resource, sequence analysis software, data processing software

Defining Citation: [PMID:22388286](#)

Keywords: sequence, analysis, long, reference, sequence, read, alignment, gap, local, pair, end, rna, rnaseq, bio.tools

Funding: NHGRI R01 HG006102;
NIGMS R01 GM083873

Availability: Free, Available for download, Freely available

Resource Name: Bowtie 2

Resource ID: SCR_016368

Alternate IDs: biotools:bowtie2

Alternate URLs: <http://bowtie-bio.sourceforge.net/bowtie2/index.shtml>,
<https://github.com/BenLangmead/bowtie2>, <https://bio.tools/bowtie2>

License: GNU General Public License v3.0

Record Creation Time: 20220129T080321+0000

Record Last Update: 20260801T042737+0000

Ratings and Alerts

No rating or validation information has been found for Bowtie 2.

No alerts have been found for Bowtie 2.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 1745 mentions in open access literature.

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

Kong Y, et al. (2026) Prebiotics as adjunctive treatment ameliorates DSS-induced colitis and gut microbiota. Microbiology spectrum, 14(1), e0150225.

Liang Y, et al. (2026) DMTF1 up-regulation rescues proliferation defect of telomere dysfunctional neural stem cells via the SWI/SNF-E2F axis. Science advances, 12(1), eady5905.

Patel UA, et al. (2026) CRISPR Screen Identifies HDAC3 as a Novel Radiosensitizing Target in Small Cell Lung Cancer. Molecular cancer therapeutics, 25(1), 183.

Xu Y, et al. (2026) From degraded to deciphered: Applying ATAC-seq to forensic molecular diagnosis under degradation conditions. Forensic science international, 379, 112789.

Pereira-Martins DA, et al. (2026) ?Np73 isoform defines a TP53-mutant-like poor-risk subgroup of acute myeloid leukemia. Cell reports. Medicine, 102540.

Nitsch S, et al. (2026) H4K16 acylations destabilize chromatin architecture and facilitate transcriptional response during metabolic perturbations. Molecular cell, 86(1), 24.

Litz B, et al. (2025) Distinct mutations emerge in the genome of serotype O foot-and-mouth disease virus during persistence in cattle. Journal of virology, 99(3), e0142224.

Zhang Y, et al. (2025) In-depth functional analysis of BRD9 in fetal hematopoiesis reveals context-dependent roles. iScience, 28(3), 112010.

Kuroha K, et al. (2025) Abnormal H3K27me3 underlies degenerative spermatogonial stem cells in cryptorchid testis. Development (Cambridge, England), 152(2).

Vemuri K, et al. (2025) Diet-induced obesity mediated through estrogen-related receptor ? is independent of intestinal function. *The Journal of biological chemistry*, 301(2), 108197.

Munakata Y, et al. (2025) Chromatin remodeler CHD4 establishes chromatin states required for ovarian reserve formation, maintenance and male germ cell survival. *Nucleic acids research*, 53(3).

Li S, et al. (2025) Spatiotemporal composition and diversity of endophyte communities in *Dracaena cambodiana* on Hainan Island. *Frontiers in microbiology*, 16, 1540669.

Zhou Y, et al. (2025) Cellular senescence-associated gene IFI16 promotes HMOX1-dependent evasion of ferroptosis and radioresistance in glioblastoma. *Nature communications*, 16(1), 1212.

Ohlsson C, et al. (2025) The beneficial effects of a probiotic mix on bone and lean mass are dependent on the diet in female mice. *Scientific reports*, 15(1), 6182.

Cumming J, et al. (2025) Dissecting FAP+ Cell Diversity in Pancreatic Cancer Uncovers an Interferon-Response Subtype of Cancer-Associated Fibroblasts with Tumor-Restraining Properties. *Cancer research*, 85(13), 2388.

Wang K, et al. (2025) Protocol for assessing regulatory elements in murine heart using an AAV9-based massively parallel reporter assay. *STAR protocols*, 6(2), 103782.

Zhang S, et al. (2025) Mitochondrial genome assembly and comparative analysis of decaploid *Camellia hainanica*. *Frontiers in plant science*, 16, 1556379.

Movilli A, et al. (2025) Long-read detection of transposable element mobilization in the soma of hypomethylated *Arabidopsis thaliana* individuals. *Genome biology*, 26(1), 231.

Ayabe H, et al. (2025) Cellular crosstalk mediated by TGF-? drives epithelial-mesenchymal transition in patient-derived multi-compartment biliary organoids. *Nature communications*, 16(1), 6575.

Chen L, et al. (2025) Hypoxic preconditioning modulates BDNF signaling to alleviate depression-like behaviors in mice and its whole transcriptome sequencing analysis. *Scientific reports*, 15(1), 15363.