

Resource Summary Report

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MiTCR

RRID:SCR_004989

Type: Tool

Proper Citation

MiTCR (RRID:SCR_004989)

Resource Information

URL: <http://mitcr.milaboratory.com/>

Proper Citation: MiTCR (RRID:SCR_004989)

Description: An open source software package aimed at extraction of information on repertoire of T-cell clones from Next Generation Sequencing (NGS) data. It is designed with the knowledge of the critical challenges arising in everyday processing of immunological data.

Abbreviations: MiTCR

Synonyms: MiTCR - T-cell receptor repertoire analysis software

Resource Type: software resource

Defining Citation: [PMID:23892897](#)

Keywords: next generation sequencing

Availability: Apache License

Resource Name: MiTCR

Resource ID: SCR_004989

Alternate IDs: OMICS_00003

Record Creation Time: 20220129T080227+0000

Record Last Update: 20260912T195619+0000

Ratings and Alerts

No rating or validation information has been found for MiTCR.

No alerts have been found for MiTCR.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 37 mentions in open access literature.

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

Yang X, et al. (2026) Analysis of the TCR α repertoire characteristics when combining radiotherapy and immunotherapy in cancer. *Oncology letters*, 31(2), 67.

Landry LG, et al. (2026) Quantitative V gene-targeted T cell receptor sequencing as a biomarker in type 1 diabetes. *JCI insight*, 11(3).

Yin S, et al. (2026) A macrophage MHC-I axis links intratumoral heterogeneity to terminal CD8 $^{+}$ T cell exhaustion in lung adenocarcinoma. *NPJ precision oncology*, 10(1).

Yoshikawa S, et al. (2025) Characterization of the Neoantigen Profile in a Tumor Mutation Burden-high Melanoma Patient With Multiple Metastases. *Cancer genomics & proteomics*, 22(3), 496.

Ali M, et al. (2022) T cells targeted to TdT kill leukemic lymphoblasts while sparing normal lymphocytes. *Nature biotechnology*, 40(4), 488.

Xydia M, et al. (2021) Common clonal origin of conventional T cells and induced regulatory T cells in breast cancer patients. *Nature communications*, 12(1), 1119.

Niebuhr M, et al. (2021) Receptor repertoires of murine follicular T helper cells reveal a high clonal overlap in separate lymph nodes in autoimmunity. *eLife*, 10.

Lin M, et al. (2021) Neoantigen landscape in metastatic nasopharyngeal carcinoma. *Theranostics*, 11(13), 6427.

Zhang Y, et al. (2020) Tools for fundamental analysis functions of TCR repertoires: a systematic comparison. *Briefings in bioinformatics*, 21(5), 1706.

Sneddon S, et al. (2020) Identification of a CD8 $^{+}$ T-cell response to a predicted neoantigen in malignant mesothelioma. *Oncoimmunology*, 9(1), 1684713.

Kovalenko EI, et al. (2020) Surface NKG2C Identifies Differentiated $\alpha\alpha$ -T-Cell Clones Expanded in Peripheral Blood. *Frontiers in immunology*, 11, 613882.

Hou X, et al. (2019) Shorter TCR α -Chains Are Highly Enriched During Thymic Selection and Antigen-Driven Selection. *Frontiers in immunology*, 10, 299.

Wang X, et al. (2019) Characterization of Distinct T Cell Receptor Repertoires in Tumor and Distant Non-tumor Tissues from Lung Cancer Patients. *Genomics, proteomics & bioinformatics*, 17(3), 287.

Zheng M, et al. (2019) TCR repertoire and CDR3 motif analyses depict the role of $\gamma\delta$ T cells in Ankylosing spondylitis. *EBioMedicine*, 47, 414.

Wang J, et al. (2019) HPV-positive status associated with inflamed immune microenvironment and improved response to anti-PD-1 therapy in head and neck squamous cell carcinoma. *Scientific reports*, 9(1), 13404.

Link-Rachner CS, et al. (2019) T-cell receptor- α repertoire of CD8⁺ T cells following allogeneic stem cell transplantation using next-generation sequencing. *Haematologica*, 104(3), 622.

Hou X, et al. (2019) No difference in TCR β repertoire of CD4⁺ naive T cell between patients with primary biliary cholangitis and healthy control subjects. *Molecular immunology*, 116, 167.

Nonomura C, et al. (2019) Identification of a neoantigen epitope in a melanoma patient with good response to anti-PD-1 antibody therapy. *Immunology letters*, 208, 52.

Yang G, et al. (2018) Characteristic analysis of TCR α -chain CDR3 repertoire for pre- and post-liver transplantation. *Oncotarget*, 9(77), 34506.

Gensterblum E, et al. (2018) CD4⁺CD28⁺KIR⁺CD11a^{hi} T cells correlate with disease activity and are characterized by a pro-inflammatory epigenetic and transcriptional profile in lupus patients. *Journal of autoimmunity*, 86, 19.