

Resource Summary Report

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TRUST4

RRID:SCR_026162

Type: Tool

Proper Citation

TRUST4 (RRID:SCR_026162)

Resource Information

URL: <https://github.com/liulab-dfci/TRUST4>

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Description: Software tool to analyze TCR and BCR sequences using unselected RNA sequencing data, profiled from fluid and solid tissues, including tumors. Performs de novo assembly on V, J, C genes including the hypervariable complementarity-determining region 3 and reports consensus contigs of BCR/TCR sequences. TRUST4 then realigns the contigs to IMGT reference gene sequences to identify the corresponding gene and CDR3 details. TRUST4 supports both single-end and paired-end bulk or single-cell sequencing data with any read length.

Resource Type: data analysis software, data processing software, software application, source code, software resource, sequence analysis software

Defining Citation: [PMID:33986545](#)

Keywords: analyze TCR and BCR sequences, de novo assembly, unselected RNA sequencing data, fluid and solid tissues, tumors,

Funding: NCI U01CA226196;
NCI U24CA224316

Availability: Free, Available for download, Freely available

Resource Name: TRUST4

Resource ID: SCR_026162

License: MIT license

Record Creation Time: 20241210T053256+0000

Record Last Update: 20260814T043137+0000

Ratings and Alerts

No rating or validation information has been found for TRUST4.

No alerts have been found for TRUST4.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 12 mentions in open access literature.

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

Hao Q, et al. (2026) A pan-cancer single cell landscape reveals heterogeneity and functional diversity of double-negative T cells. *Molecular cancer*, 25(1), 24.

Sawada K, et al. (2026) Ambient temperature regulates CD4+ T cell tonic T cell receptor signaling and responsiveness. *iScience*, 29(5), 115801.

de Souza Resende JS, et al. (2026) The Steroidal Profile Modulates Adaptive Immune Response and Prognosis in Adrenocortical Carcinoma: Analysis of TCR and BCR Repertoires. *Cancer medicine*, 15(6), e71781.

Ye J, et al. (2026) Baseline Tumor Features and Systemic Immune Dynamics Underlying Efficacy in MSS Metastatic Colorectal Cancer Treated with Regorafenib, Ipilimumab, and Nivolumab. *Cancer immunology research*, 14(4), 585.

Zeng Q, et al. (2026) Intratumoral Tertiary Lymphoid Structures Characterized by a B Cell-Related Signature Elicit Antitumor Effect through HAPLN3 in Hepatocellular Carcinoma. *Cancer immunology research*, 14(5), 771.

Lim SH, et al. (2025) Determinants of Response to Sequential Pembrolizumab with Trastuzumab plus Platinum/5-FU in HER2-Positive Gastric Cancer: A Phase II Chemoimmunotherapy Trial. *Clinical cancer research : an official journal of the American Association for Cancer Research*, 31(8), 1476.

Song Z, et al. (2025) Mega-scale single-cell profiling reveals novel biomarkers associated with acute GvHD after allogeneic hematopoietic stem cell transplantation. *Biomarker research*, 13(1), 155.

Xie H, et al. (2025) Lymphotoxin-driven cancer cell eradication by tumoricidal CD8+ TIL. *bioRxiv : the preprint server for biology*.

Zhang L, et al. (2025) KLRG1 re-defines a leukemic clone of CD8 effector T cells sensitive to PI3K inhibitor in T??cell large granular lymphocytic leukemia. *Cell reports. Medicine*, 6(4), 102036.

Yang M, et al. (2024) The intratumoral landscape of T cell receptor repertoire in esophageal squamous cell carcinoma. *Journal of translational medicine*, 22(1), 1069.

Ding J, et al. (2024) A distinct immune landscape in anti-synthetase syndrome profiled by a single-cell genomic study. *Frontiers in immunology*, 15, 1436114.

Andreani T, et al. (2022) Benchmarking computational methods for B-cell receptor reconstruction from single-cell RNA-seq data. *NAR genomics and bioinformatics*, 4(3), lqac049.