

Package: shazam (via r-universe)

May 26, 2026

Type Package

Version 1.3.2.999

Date 2026-05-26

Title Immunoglobulin Somatic Hypermutation Analysis

Description Provides a computational framework for analyzing mutations in immunoglobulin (Ig) sequences. Includes methods for Bayesian estimation of antigen-driven selection pressure, mutational load quantification, building of somatic hypermutation (SHM) models, and model-dependent distance calculations. Also includes empirically derived models of SHM for both mice and humans. Citations: Gupta and Vander Heiden, et al (2015) [<doi:10.1093/bioinformatics/btv359>](https://doi.org/10.1093/bioinformatics/btv359), Yaari, et al (2012) [<doi:10.1093/nar/gks457>](https://doi.org/10.1093/nar/gks457), Yaari, et al (2013) [<doi:10.3389/fimmu.2013.00358>](https://doi.org/10.3389/fimmu.2013.00358), Cui, et al (2016) [<doi:10.4049/jimmunol.1502263>](https://doi.org/10.4049/jimmunol.1502263).

License AGPL-3

URL <http://shazam.readthedocs.io>

BugReports <https://github.com/immcantation/shazam/issues>

LazyData true

BuildVignettes true

VignetteBuilder knitr, rmarkdown

Encoding UTF-8

Depends R (>= 4.0), ggplot2 (>= 3.4.0)

Imports alakazam (>= 1.4.1), ape, diptest, doParallel, dplyr (>= 1.0), foreach, graphics, grid, igraph (>= 1.5.0), iterators, KernSmooth, lazyeval, MASS, methods, parallel, progress, rlang, scales, seqinr, stats, stringi (>= 1.1.3), tidyr, tidyselect, utils

Suggests knitr, rmarkdown, testthat, tibble

2

Collate 'Shazam.R' 'Core.R' 'RegionDefinitions.R' 'Baseline.R'
'ConvertNumbering.R' 'MutationProfiling.R' 'Deprecated.R'
'DistToNearest.R' 'MutationDefinitions.R' 'RegionsExtend.R'
'Shmulate.R' 'TargetingModels.R' 'kedd.R'

RoxygenNote 7.3.3

Config/pak/sysreqs

libglpk-dev libbz2-dev libicu-dev liblzma-dev libxml2-dev libx11-dev xz-utils zlib1g-dev

Repository <https://immcantation.r-universe.dev>

Date/Publication 2026-05-26 08:50:38 UTC

RemoteUrl <https://github.com/immcantation/shazam>

RemoteRef HEAD

RemoteSha cdf9f1c6712c1437cc9b13171fccd395de84d8df