Resource Summary Report

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IMGT/HLA

RRID:SCR_002971
Type: Tool

Proper Citation

IMGT/HLA (RRID:SCR_002971)

Resource Information

URL: http://www.ebi.ac.uk/imgt/hla/

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Description: Database for sequences of the human major histocompatibility complex (HLA) and includes the official sequences for the WHO Nomenclature Committee For Factors of the HLA System. It currently contains 9,310 allele sequences (2013) along with detailed information concerning the material from which the sequence was derived and data on the validation of the sequences. It is established procedure for authors to submit the sequences directly to the IMGT/HLA Database for checking and assignment of an official name prior to publication, this avoids the problems associated with renaming published sequences and the confusion of multiple names for the same sequence. The need for reasonably rapid publication of new HLA allele sequences has necessitated an annual meeting of the WHO Nomenclature Committee for Factors of the HLA System. Additionally they now publish monthly HLA nomenclature updates both in journals and online to provide quick and easy access to new sequence information. The IMGT/HLA Database is part of the international ImMunoGeneTics project. In collaboration with the Imperial Cancer Research Fund (ICRF) and European Bioinformatics Institute (EBI) they have developed an Oracle database to house the HLA sequences in such a way as to allow users to present complex queries about the sequence, sequence features, references, contacts and allele designations to the database via a graphical user interface over the web. The IMGT/HLA Database Submission Tool allows direct submission of sequences to the WHO HLA Nomenclature Committee for Factors of the HLA System. The IMGT/HLA Database provides an FTP site for the retrieval of sequences in a number of pre-formatted files.

Abbreviations: IMGT HLA, IMGT/HLA

Synonyms: IMGT HLA, IMGT/HLA DB, IMGT/HLA Database, International ImMunoGeneTics/Human Leukocyte Antigen Database

Resource Type: data or information resource, service resource, data repository, database, storage service resource

Defining Citation: PMID:21071412, PMID:10777106, PMID:18838392

Keywords: alignment, allele, cell, hla, sequence alignment, major histocompatibility complex, nomenclature, blast, immunogenetics, histocompatibility, gene mapping, gene rearrangement, genetic recombination, genetics, gold standard, bio.tools

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Anthony Nolan Trust ;
Imperial Cancer Research Fund

Resource Name: IMGT/HLA

Resource ID: SCR_002971

Alternate IDs: nif-0000-03014, biotools:ipd-imgt_hla

Alternate URLs: https://bio.tools/ipd-imgt_hla

Record Creation Time: 20220129T080216+0000

Record Last Update: 20250412T054749+0000

Ratings and Alerts

No rating or validation information has been found for IMGT/HLA.

No alerts have been found for IMGT/HLA.

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We found 265 mentions in open access literature.

Listed below are recent publications. The full list is available at FDI Lab - SciCrunch.org.

Zhang T, et al. (2024) Comparison of Shared Class I HLA-bound Non-canonical Neoepitopes between Normal and Neoplastic Tissues of Pancreatic Adenocarcinoma. Clinical cancer research : an official journal of the American Association for Cancer Research.

Pant S, et al. (2024) Lymph-node-targeted, mKRAS-specific amphiphile vaccine in pancreatic and colorectal cancer: the phase 1 AMPLIFY-201 trial. Nature medicine, 30(2), 531.

Behera S, et al. (2024) Comprehensive and accurate genome analysis at scale using DRAGEN accelerated algorithms. bioRxiv : the preprint server for biology.

Holt JM, et al. (2024) StarPhase: Comprehensive Phase-Aware Pharmacogenomic Diplotyper for Long-Read Sequencing Data. bioRxiv : the preprint server for biology.

Wang X, et al. (2024) In silico neoantigen screening and HLA multimer-based validation identify immunogenic neopeptide in multifocal lung adenocarcinoma. Frontiers in immunology, 15, 1456209.

Banjoko AW, et al. (2024) High Resolution Class I HLA -A, -B, and -C Diversity in Eastern and Southern African Populations. bioRxiv : the preprint server for biology.

Lai SK, et al. (2024) A novel framework for human leukocyte antigen (HLA) genotyping using probe capture-based targeted next-generation sequencing and computational analysis. Computational and structural biotechnology journal, 23, 1562.

Ren X, et al. (2024) Differences in F pocket impact on HLA I genetic associations with autoimmune diabetes. Frontiers in immunology, 15, 1342335.

Ding XH, et al. (2024) The HLA-I landscape confers prognosis and antitumor immunity in breast cancer. Briefings in bioinformatics, 25(3).

Wang T, et al. (2024) The association between HLA-B variants and amoxicillin-induced severe cutaneous adverse reactions in Chinese han population. Frontiers in pharmacology, 15, 1400239.

Burnham KL, et al. (2024) eQTLs identify regulatory networks and drivers of variation in the individual response to sepsis. Cell genomics, 4(7), 100587.

Santos-Rebouças CB, et al. (2024) Immune response stability to the SARS-CoV-2 mRNA vaccine booster is influenced by differential splicing of HLA genes. Scientific reports, 14(1), 8982.

Wang L, et al. (2024) Identification of virus epitopes and reactive T-cell receptors from memory T cells without peptide synthesis. Communications biology, 7(1), 1432.

Obispo D, et al. (2024) New Associations with the HIV Predisposing and Protective Alleles of the Human Leukocyte Antigen System in a Peruvian Population. Viruses, 16(11).

Sornsamdang G, et al. (2024) Novel genetic variants of HLA gene associated with Thai Behcet's disease (BD) patients using next generation sequencing technology. Scientific reports, 14(1), 7967.

Buianova A, et al. (2024) Trio-based exome sequencing and high-resolution HLA typing in families of patients with autoimmune adrenal insufficiency and autoimmune polyglandular syndrome. PloS one, 19(10), e0312335.

Tizu M, et al. (2024) Immunogenetic Background of Chronic Lymphoproliferative Disorders in Romanian Patients-Case Control Study. Medical sciences (Basel, Switzerland), 12(1).

Mentzer AJ, et al. (2024) High-resolution African HLA resource uncovers HLA-DRB1 expression effects underlying vaccine response. Nature medicine, 30(5), 1384.

Jaruthamsophon K, et al. (2024) Molecular identification of HLA-B75 serotype markers by qPCR: A more inclusive pharmacogenetic approach before carbamazepine prescription. Clinical and translational science, 17(6), e13867.

Tammi S, et al. (2024) Accurate multi-population imputation of MICA, MICB, HLA-E, HLA-F and HLA-G alleles from genome SNP data. PLoS computational biology, 20(9), e1011718.