

Resource Summary Report

Generated by SPARC SAWG on Aug 10, 2026

BoLA Nomenclature: International Society for Animal Genetics

RRID:SCR_008142

Type: Tool

Proper Citation

BoLA Nomenclature: International Society for Animal Genetics (RRID:SCR_008142)

Resource Information

URL: <http://www.ebi.ac.uk/ipd/mhc/bola/>

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Description: This website is intended to be the definitive source of information on the bovine major histocompatibility complex - its genes, proteins and polymorphism. Its purpose is to collate data on the Bovine Leucocyte Antigens (BoLA) and provide a forum for the analysis and nomenclature of polymorphisms in the genes and proteins of the bovine MHC. The BoLA nomenclature committee is a standing committee of the International Society for Animal Genetics. Its purpose is to collate data on the Bovine Leucocyte Antigens (BoLA) and provide a forum for the analysis and nomenclature of polymorphisms in the genes and proteins of the bovine MHC. The information gathered here is based on the BoLA workshop reports, which are published in Animal Genetics and the European Journal of Immunogenetics. The workshop report data are reproduced with the permission of the publishers Blackwell Science, and other text on the site is used with the permission of CRC Press.

Synonyms: International Society for Animal Genetics

Resource Type: database, data or information resource

Keywords: gene, genetic, animal, antigen, bovine, complex, histocompatibility, immunogenetic, leucocyte, nomenclature, polymorphism, protein, journal article

Resource Name: BoLA Nomenclature: International Society for Animal Genetics

Resource ID: SCR_008142

Alternate IDs: nif-0000-20967

Old URLs: <http://www.projects.roslin.ac.uk/bola/bolahome.html>

Record Creation Time: 20220129T080245+0000

Record Last Update: 20260808T190413+0000

Ratings and Alerts

No rating or validation information has been found for BoLA Nomenclature: International Society for Animal Genetics.

No alerts have been found for BoLA Nomenclature: International Society for Animal Genetics.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 16 mentions in open access literature.

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

Obara I, et al. (2025) Fully Phased Population-Prevalent East African Cattle BoLA-I Alleles Determined Using PacBio HiFi Long-Read Sequencing Represent Five Novel Specificities With Distinctive Peptide Binding Potential. HLA, 105(4), e70183.

Bai L, et al. (2019) Mapping of CD4+ T-cell epitopes in bovine leukemia virus from five cattle with differential susceptibilities to bovine leukemia virus disease progression. Virology journal, 16(1), 157.

Guzman E, et al. (2019) Bovine Derived in vitro Cultures Generate Heterogeneous Populations of Antigen Presenting Cells. Frontiers in immunology, 10, 612.

Takeshima SN, et al. (2019) Bovine leukemia virus proviral load is more strongly associated with bovine major histocompatibility complex class II DRB3 polymorphism than with DQA1 polymorphism in Holstein cow in Japan. Retrovirology, 16(1), 14.

Demasius W, et al. (2016) A novel RNAseq-assisted method for MHC class I genotyping in a non-model species applied to a lethal vaccination-induced alloimmune disease. BMC genomics, 17, 365.

Bai L, et al. (2015) Identification and characterization of common B cell epitope in bovine leukemia virus via high-throughput peptide screening system in infected cattle. Retrovirology, 12, 106.

Schwartz JC, et al. (2015) The assembly and characterisation of two structurally distinct cattle MHC class I haplotypes point to the mechanisms driving diversity. Immunogenetics, 67(9), 539.

Benedictus L, et al. (2015) Pathogenicity of Bovine Neonatal Pancytopenia-associated vaccine-induced alloantibodies correlates with Major Histocompatibility Complex class I expression. *Scientific reports*, 5, 12748.

Momtaz S, et al. (2014) Evolutionary Analysis and Prediction of Peptide Vaccine Candidates for Foot-and-Mouth-Disease Virus Types A and O in Bangladesh. *Evolutionary bioinformatics online*, 10, 187.

Gowane GR, et al. (2013) Association of BoLA DRB3 alleles with variability in immune response among the crossbred cattle vaccinated for foot-and-mouth disease (FMD). *Research in veterinary science*, 95(1), 156.

Mosafer J, et al. (2012) Distribution of BoLA-DRB3 allelic frequencies and identification of two new alleles in Iranian buffalo breed. *TheScientificWorldJournal*, 2012, 863024.

Naskar S, et al. (2012) Molecular characterization of MHC-DRB cDNA in water buffalo (*Bubalus bubalis*). *Genetics and molecular biology*, 35(1), 95.

De S, et al. (2011) Allelic Diversity of Major Histocompatibility Complex Class II DRB Gene in Indian Cattle and Buffalo. *Molecular biology international*, 2011, 120176.

Macdonald IK, et al. (2010) MHC class I bound to an immunodominant *Theileria parva* epitope demonstrates unconventional presentation to T cell receptors. *PLoS pathogens*, 6(10), e1001149.

Araibi EH, et al. (2006) The E5 oncoprotein of BPV-4 does not interfere with the biosynthetic pathway of non-classical MHC class I. *Virology*, 353(1), 174.

Norimine J, et al. (2006) A novel 78-kDa fatty acyl-CoA synthetase (ACS1) of *Babesia bovis* stimulates memory CD4⁺ T lymphocyte responses in *B. bovis*-immune cattle. *Molecular and biochemical parasitology*, 147(1), 20.