

Mouse HLA-A Monoclonal Antibody | anti-HLA-A antibody

HLA-A Antibody (Center)

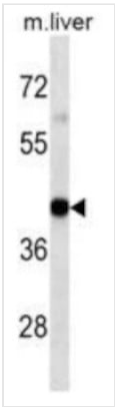
CATALOG # AAA283464	HOST Mouse	REACTIVITY Mouse (Predicted Reactivity: Human)	APPLICATIONS ELISA, Western Blot
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PRODUCT SYNONYMS

HLA-A; Monoclonal Antibody; HLA-A Antibody (Center); HLA class I histocompatibility antigen; A-3 alpha chain; MHC class I antigen A*3; HLAA; anti-HLA-A antibody

PRODUCT SPECIFICATIONS

Host	Mouse
Reactivity	Mouse (Predicted Reactivity: Human)
Clonality	Monoclonal
Isotype	IgG1,Ig
Specificity	This HLA-A antibody is generated from mice immunized with a KLH conjugated synthetic peptide between 70-99 amino acids from the Central region of human HLA-A.
Purity/Purification	This antibody is purified through a protein G column, followed by dialysis against PBS.
Form/Format	Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide.
Sequence Positions	70-99
Sequence Length	365
Applicable Applications for anti-HLA-A antibody	ELISA, WB (Western Blot)
Function	Antigen-presenting major histocompatibility complex class I (MHC I) molecule. In complex with B2M/beta 2 microglobulin displays primarily viral and tumor-derived peptides on antigen-presenting cells for recognition by alpha-beta T cell receptor (TCR) on HLA-A-restricted CD8-positive T cells, guiding antigen-specific T cell immune response to eliminate infected or transformed cells (PubMed:2456340, PubMed:2784196, PubMed:1402688, PubMed:7504010, PubMed:9862734, PubMed:10449296, PubMed:12138174, PubMed:12393434, PubMed:15893615, PubMed:17189421, PubMed:19543285, PubMed:21498667, PubMed:24192765, PubMed:7694806, PubMed:24395804, PubMed:28250417). May also present self-peptides derived from the signal sequence of secreted or membrane proteins, although T cells specific for these peptides are usually inactivated to prevent autoreactivity (PubMed:25880248, PubMed:7506728, PubMed:7679507). Both the peptide and the MHC molecule are recognized by TCR, the peptide is responsible for the fine specificity of antigen recognition and MHC residues account for the MHC restriction of T cells (PubMed:12796775, PubMed:18275829, PubMed:19542454, PubMed:28250417). Typically presents intracellular peptide antigens of 8 to 13 amino acids that arise from cytosolic proteolysis via IFNG-induced immunoproteasome or via endopeptidase IDE/insulin-degrading enzyme (PubMed:17189421, PubMed:20364150, PubMed:17079320, PubMed:26929325, PubMed:27049119). Can bind different peptides containing allele- specific binding motifs, which are mainly defined by anchor residues at position 2 and 9 (PubMed:7504010, PubMed:9862734).
Cellular Location	Cell membrane; Single-pass type I membrane protein. Endoplasmic reticulum membrane; Single-pass type I membrane protein
Tissue Location	Ubiquitous..
Preparation and Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.



WB (Western Blot)
HLA-A Antibody western blot analysis in mouse Liver tissue lysates (35ug/lane). This demonstrates the HLA-A antibody detected the HLA-A protein (arrow).

ADDITIONAL INFORMATION

Related Product Information for anti-HLA-A antibody	HLA-A belongs to the HLA class I heavy chain paralogues. This class I molecule is a heterodimer consisting of a heavy chain and a light chain (beta-2 microglobulin). The heavy chain is anchored in the membrane. Class I molecules play a central role in the immune system by presenting peptides derived from the endoplasmic reticulum lumen. They are expressed in nearly all cells. The heavy chain is approximately 45 kDa and its gene contains 8 exons. Exon 1 encodes the leader peptide, exons 2 and 3 encode the alpha1 and alpha2 domains, which both bind the peptide, exon 4 encodes the alpha3 domain, exon 5 encodes the transmembrane region, and exons 6 and 7 encode the cytoplasmic tail. Polymorphisms within exon 2 and exon 3 are responsible for the peptide binding specificity of each class one molecule. Typing for these polymorphisms is routinely done for bone marrow and kidney transplantation. Hundreds of HLA-A alleles have been described.
Product Categories/Family for anti-HLA-A antibody	Immunology
References	HLA Class I and Genetic Susceptibility to Type 1 Diabetes: Results from the Type 1 Diabetes Genetics Consortium. Noble JA, et al. Diabetes, 2010 Aug 26. PMID 20798335. Effect of HLA Class I and Class II Alleles on Progression from Autoantibody Positivity to Overt Type 1 Diabetes in Children with Risk-Associated Class II Genotypes. Lipponen K, et al. Diabetes, 2010 Aug 25. PMID 20739684. Infectious mononucleosis-linked HLA class I single nucleotide polymorphism is associated with multiple sclerosis. Jafari N, et al. Mult Scler, 2010 Aug 24. PMID 20736246. [Associations of Human Leukocyte Antigen-A, B, DRB1 Genes with Leukemia Patients in Anhui Province of China.] Liao YQ, et al. Zhongguo Shi Yan Xue Ye Xue Za Zhi, 2010 Jul. PMID 20723328. Longer survival associated with HLA-A*03, B*14 among 212 hemochromatosis probands with HFE C282Y homozygosity and HLA-A and -B typing and haplotyping. Barton JC, et al. Eur J Haematol, 2010 Aug 14. PMID 20722701.

NCBI AND UNIPROT INFORMATION

NCBI GI #	24797067
NCBI GeneID	3105
NCBI Accession #	NP_002107.3
NCBI GenBank Nucleotide #	NM_002116.7
UniProt Accession #	P04439; O19546; O19756; Q65A82; Q9GJE6; Q9GJE7; Q9GJE8; Q9MYE6; Q9MYG4; Q9TPR8; P01891; P01892; P05534; P10314; P10316; P13746; P16189; P18462; P30443
Molecular Weight	Calculated MW: 40841
NCBI Official Full Name	HLA class I histocompatibility antigen, A-1 alpha chain
NCBI Official Synonym Full Names	major histocompatibility complex, class I, A
NCBI Official Symbol	HLA-A

NCBI Official Synonym Symbols	HLAA
NCBI Protein Information	HLA class I histocompatibility antigen, A-1 alpha chain
UniProt Protein Name	HLA class I histocompatibility antigen, A-3 alpha chain
UniProt Gene Name	HLA-A
UniProt Synonym Gene Names	HLAA
UniProt Entry Name	1A03_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/monoclonal/hla-a-antibody-western-blot-elisa/283464>