

HLA-ABC (MHC I) Antibody - With BSA and Azide

Mouse Monoclonal Antibody [Clone 246-B8.E7]

Catalog # AH11398

Product Information

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| Application | IF, FC |
| Primary Accession | P01889 |
| Other Accession | 3105 , 181244 , 654404 , 77961 , P30443 , P30499 |
| Reactivity | Human, Mouse |
| Host | Mouse |
| Clonality | Monoclonal |
| Isotype | Mouse / IgG2a, kappa |
| Clone Names | 246-B8.E7 |
| Calculated MW | 40460 |

Additional Information

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|------------------|---|
| Gene ID | 3106 |
| Other Names | HLA class I histocompatibility antigen, B-7 alpha chain, MHC class I antigen B*7, HLA-B, HLAB |
| Application Note | IF~~1:50~200 FC~~1:10~50 |
| Storage | Store at 2 to 8°C.Antibody is stable for 24 months. |
| Precautions | HLA-ABC (MHC I) Antibody - With BSA and Azide is for research use only and not for use in diagnostic or therapeutic procedures. |

Protein Information

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| Name | HLA-B (HGNC:4932) |
| Synonyms | HLAB |
| 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-B-restricted CD8-positive T cells, guiding antigen-specific T cell immune response to eliminate infected or transformed cells (PubMed: 23209413 , PubMed: 25808313 , PubMed: 29531227 , PubMed: 9620674). 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: 18991276 , PubMed: 7743181). 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:[24600035](#), PubMed:[29531227](#), PubMed:[9620674](#)). Typically presents intracellular peptide antigens of 8 to 13 amino acids that arise from cytosolic proteolysis via constitutive proteasome and IFNG-induced immunoproteasome (PubMed:[23209413](#)). Can bind different peptides containing allele-specific binding motifs, which are mainly defined by anchor residues at position 2 and 9 (PubMed:[25808313](#), PubMed:[29531227](#)).

Cellular Location

Cell membrane; Single-pass type I membrane protein. Endoplasmic reticulum membrane; Single-pass type I membrane protein

Background

Reacts with a monomorphic determinant of human major histocompatibility (MHC) class I antigens (HLA-A, B and C). Human MHC class I antigens are expressed constitutively on all nucleated cells lymphocytes such as lymphocytes, thymocytes, granulocytes, and bone marrow cells and are absent on erythrocytes. MHC class I antigens play a role in class I MHC-associated antigen presentation, inhibition of NK cell cytotoxicity, tumor surveillance, and tissue allotransplantation.

References

Young NT et al. Killer cell inhibitory receptor interactions with HLA class I molecules: implications for alloreactivity and transplantation. Hum Immunol 1997, 52(1):1-11 | Krensky AM et al Immunomodulation by HLA class I-derived peptides. Transplant Proc 1996, 28(6):3026-8 | Hansen JA et al The HLA system in clinical marrow transplantation. Hematol Oncol Clin North Am 1990, 4(3):507-515

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.