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

Mouse Monoclonal Antibody [Clone SPM419]
Catalog # AH11400

Product Information

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	SPM419
Calculated MW	40460

Additional Information

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

Name	HLA-B (HGNC:4932)
Synonyms	HLAB
Function	Antigen-presenting major histocompatibility complex class I (MHCI) 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. |

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