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

Mouse Monoclonal Antibody [Clone 108-2C5]
Catalog # AH11402

Product Information

Application	IF, FC
Primary Accession	P01889
Other Accession	3105, 181244, 654404, 77961, P30443, P30499
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse / IgG1, kappa
Clone Names	108-2C5
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-A (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

HLA-A, with HLA-B and HLA-C, belongs to major histocompatibility complex (MHC) class I antigens and expresses constitutively on all nucleated cells. MHC class I antigens play a role in class I MHC-associated antigen presentation, inhibition of NK cell cytotoxicity, tumor surveillance, and tissue allotransplantation. This MAb is useful for HLA molecular typing of peripheral blood leukocytes as well as a large number of leukemic cell lines. It reacts with an intralocus determinant present on a limited number of HLA-A locus-encoded gene products (HLA-A2, -A3, -A28, -A29, -A30, -A31 and Aw33). Its epitope maps between aa65-to-aa80 of the ?1 domain of the HLA-A. This MAb recognizes an intralocus determinant present on a limited number of HLA-A locus-encoded gene products (HLA-A2, -A3, A28, -A29, -A30, -A31 and -Aw33). Furthermore, by testing its reactivity with HLA-A2 natural variants and mutants, the importance of amino acid residues 79 and/or 80 of the α1 domain was demonstrated in the formation of an intralocus HLA-A determinant.

References

Domenech N et al. Hum Immunol 1991, 30(2):140-6 | Lozano F et al. Immunogenetics 1989, 30::50-3 | Lozano F et al. Tissue Antigens 1990, 35:193-5 | Young NT et al. Hum Immunol 1997, 52(1):1-11 | Krensky AM et al Transplant Proc 1996, 28(6):3026-8 | Hansen JA et al Hematol Oncol Clin North Am 1990, 4(3):507-515