Human HLA Class I Antibody

Monoclonal Mouse IgG_{2B} Clone # 1069511

Catalog Number: MAB11502

DESCRIPTION

Species Reactivity	Human
Specificity	Detects the human HLA-A protein by binding to its peptide region which includes Aspartic Acid (ASP) 338 as determined by ELISA.
Source	Monoclonal Mouse IgG_{2B} Clone # 1069511
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Membranes from human tonsillar lymphocytes
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 μm filtered solution in PBS.

APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Western Blot	2 µg/mL	MDA-MB-231 human breast cancer cell line, Raji human Burkitt's lymphoma cell line and THP-1 human acute monocytic leukemia cell line
Flow Cytometry	2.5 µg/10^6 cells	Detection of HLA Class I in PBMC by Flow Cytometry
Immunohistochemistry	3-25 µg/mL	Immersion fixed paraffin-embedded sections of human spleen

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Global | bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL: 1.612.379.2956
USA | TEL: 800.343.7475 Canada | TEL: 855.668.8722 Europe | Middle East | Africa TEL: +44.0.1235.529449
China | info.cn@bio-techne.com TEL: 400.821.3475

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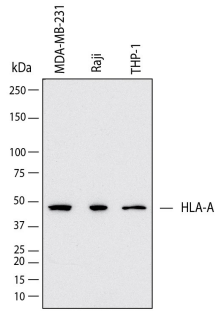
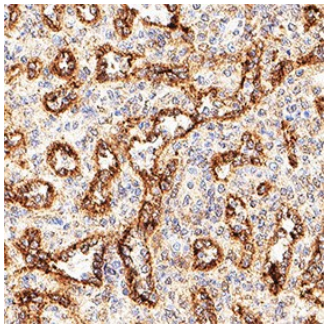
DATA

Western Blot



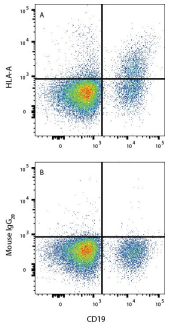
Detection of Human HLA Class I by Western Blot. Western Blot shows lysates of MDA-MB-231 human breast cancer cell line, Raji human Burkitt's lymphoma cell line and THP-1 human acute monocytic leukemia cell line. PVDF membrane was probed with 2 µg/ml of Mouse Anti-Human HLA Class I Monoclonal Antibody (Catalog # MAB11502) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF018). A specific band was detected for HLA Class I at approximately 48 kDa (as indicated). This experiment was conducted under reducing conditions and using Western Blot Buffer Group 1.

Immunohistochemistry



Detection of HLA Class I in Human Spleen. HLA Class I was detected in immersion fixed paraffin-embedded sections of human spleen using Mouse Anti-Human HLA Class I Monoclonal Antibody (Catalog # MAB11502) at 1.7 µg/ml for 1 hour at room temperature followed by incubation with the HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007) or the Anti-Mouse IgG VisUCyte™ HRP Polymer Antibody (Catalog # VC001). Before incubation with the primary antibody, tissue was subjected to heat-induced epitope retrieval using VisUCyte Antigen Retrieval Reagent-Basic (Catalog # VCTS021). Tissue was stained using DAB (brown) and counterstained with hematoxylin (blue). Specific staining was localized to endothelial cells. View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.

Flow Cytometry



Detection of HLA Class I in PBMC by Flow Cytometry PBMC were stained with Mouse Anti-Human CD19 APC-conjugated Monoclonal Antibody (Catalog # FAB4867A) and either (A) Mouse Anti-Human HLA Class I Monoclonal Antibody (Catalog # MAB11502) or (B) isotype control antibody (Catalog # MAB004) followed by Phycoerythrin-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # F0102B). View our protocol for Staining Membrane-associated Proteins.

PREPARATION AND STORAGE

Reconstitution	Reconstitute lyophilized material at 0.2mg/ml in sterile PBS. For liquid material, refer to CoA for concentration.
Shipping	Lyophilized product is shipped at ambient temperature. Liquid small pack size (-SP) is shipped with polar packs. Upon receipt, store immediately at the temperature recommended below.
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

HLA-A, B, and C are approximately 45 kDa transmembrane glycoproteins in the major histocompatibility complex 1 (MHC I) family. They contain three alpha domains in their extracellular regions. HLA molecules are expressed on nearly all nucleated cells in association with the 12 kDa beta 2-Microglobulin. This complex binds peptides derived from pathogenic cytosolic or extracellular proteins such as viral or microbial proteins. It presents these peptides on the cell surface for recognition by the T cell receptor on CD8+ cytotoxic T cells. The activated cytotoxic T cell then kills the presenting cell. Mismatched MHC I alleles between a host and a donor lead to transplant rejection.

References:

1. Barnstable, C.J. *et al.* (1978) Cell **14**:9.

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