



Mouse anti MHC I (HLA-A,B,C) Monoclonal Antibody

Alternative Name(s): Major histocompatibility complex, class I

Order Information

- **Description:** MHC I (HLA-A,B,C)
- **Catalogue:** 500-7914
- **Lot:** See label
- **Size:** 100ug/200ul
- **Host:** Mouse
- **Clone:** ABM419
- **Application:** IHC(P), FC
- **Reactivity:** Hu

ANTIGEN PREPARATION

A recombinant protein of human MHC1

BACKGROUND

MHC, Major histocompatibility complex molecules, also designated human leukocyte antigen (HLA) molecules, are cell-surface receptors that bind foreign peptides and present them to T lymphocytes. MHC class I molecules consist of two polypeptide chains, an α or heavy chain, and β -2-Microglobulin, a non-covalently associated protein. Cytotoxic T lymphocytes bind antigenic peptides presented by MHC class I molecules. Antigens that bind to MHC class I molecules are typically 8-10 residues in length and are stabilized in a peptide binding groove. MHC class II molecules are encoded by polymorphic MHC genes and consist of a non-covalent complex of an α and β chain. Helper T lymphocytes bind antigenic peptides presented by MHC class II molecules. MHC class II molecules bind 13-18 amino acid antigenic peptides. Accumulating in endosomal/lysosomal compartments and on the surface of B cells, HLA-DM and -DO molecules regulate binding of exogenous peptides to class II molecules (HLA-DR) by sustaining a conformation that favors peptide exchange. The differential structural properties of MHC class I and class II molecules account for their respective roles in activating different populations of T lymphocytes.

PURIFICATION

The mouse IgG is purified by Protein A-Affinity Chromatography according to Isotyping

FORMULATION

This affinity purified antibody is supplied in sterile Phosphatebuffered saline (pH7.2) containing antibody stabilizer

SPECIFICITY

This antibody recognizes MHC I (HLA-A,B,C) protein. It reacts to human, mice and rat. The other species not tested.

STORAGE

The antibodies are stable for 24 months from date of receipt when stored at -20°C to -70°C . The antibodies can be stored at 2°C - 8°C for three month without detectable loss of activity. Avoid repeated freezing-thawing cycles.

APPLICATIONS/SUGGESTED WORKING DILUTIONS*

- Western Blot: 0.1-1 $\mu\text{g}/\text{ml}$
- ELISA: 0.01-0.1 $\mu\text{g}/\text{ml}$
- Immunoprecipitation: 2-5 $\mu\text{g}/\text{ml}$
- IHC: 2-10 $\mu\text{g}/\text{ml}$
- Flow cytometry: 0.5-5 $\mu\text{g}/10^6$ cells
- Molecular Weight: 42&12
- Positive Control: Kidney Tissue
- Cellular Location: Cell Membrane

FOR RESEARCH USE ONLY.

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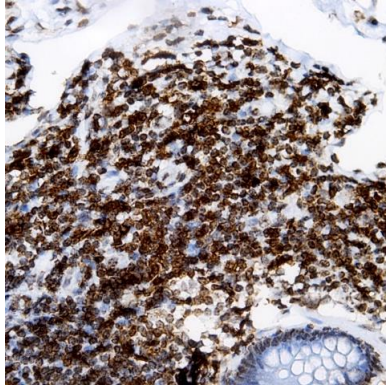


*Optimal dilutions should be determined by researchers for the specific applications.

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DATA ATTACHMENTS



Immunohistochemistry: Human Tonsil Tissue (FFPE) stained with Mouse anti-MHC1 (Cat# 500-7914) at 1:200 for 10 min @ RT. Staining of formalin-fixed tissue requires boiling tissue sections in 10 mM Citrate Buffer, pH 6.0 for 10 min followed by cooling at RT for 20 min.

REFERENCES

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