Leinco Technologies, Inc.
excellence in early discovery research™

Human HLA-A, B, C (MHC Class I) Antibody

Purified in vivo PLATINUM™ Functional Grade

Monoclonal Antibody

Product Information

Product No.:	H463
Clone:	W6/32
RRID:	AB_2893098
Isotype:	Mouse IgG2a k
Storage:	Sterile 2 to 8°C

Product Description

Specificity:
Clone W6/32 recognizes the human MHC class I molecules HLA-A, -B, and -C.

Antigen Distribution:
HLA-A, -B, and -C are ubiquitously expressed on nucleated cells.

Background:
HLA antibody, clone W6/32, recognizes the major histocompatibility complex (MHC) class I molecules human leukocyte antigen (HLA)-A, HLA-B, and HLA-C. MHC class I is ubiquitously expressed on the cell surface of nucleated cells and consists of a 45-kDa type I transmembrane glycoprotein (α-chain or heavy chain) and a 12-kDa soluble protein (β2-microglobulin, β2M)1,2. The α-chain consists of three domains (α1, α2, and α3)3. α1 and α2 form the closed antigen-binding groove and bind to 8-10 aa peptides derived from cytosolic antigens4-6. β2M noncovalently associates with α3, which is essential for MHC stability. MHC class I plays a critical role in the adaptive immune response by presenting endogenous antigens to cytotoxic CD8 T cells. MHC class I molecules can also present exogenous antigens to CD8 T cells via a process known as cross-presentation7. The T cell receptor (TCR)/CD3 complex of CD8 T cells interacts with peptide-MHC class I, which induces CD8 T cell activation and subsequent cell-killing. CD8 molecules also bind to MHC class I, which helps augment TCR signaling8. In contrast to CD8 T cells, MHC class I is an inhibitory ligand for natural killer (NK) cells, promoting self tolerance9. MHC class I also contributes to the positive selection of CD8 T cells and NK cell specificity10,11.

Known Reactivity Species:
Baboon, Chimpanzee, Cynomolgus Monkey, Feline, Bovine, Human

Format:
Purified in vivo PLATINUM™ Functional Grade

Immunogen:
Human tonsil cell membrane

Formulation
This monoclonal antibody is aseptically packaged and formulated in 0.01 M phosphate buffered saline (150 mM NaCl) PBS pH 7.2 - 7.4 with no carrier protein, potassium, calcium or preservatives added. Due to inherent biochemical properties of antibodies, certain products may be prone to precipitation over time. Precipitation may be removed by aseptic centrifugation and/or filtration.

Purity
≥98% monomer by analytical SEC, >98% by SDS Page

Endotoxin
≤ 0.5 EU/mg as determined by the LAL method

Storage and Stability
Functional grade preclinical antibodies may be stored sterile as received at 2-8°C for up to one month. For longer term storage, aseptically aliquot in working volumes without diluting and store at ≤ -70°C.
Avoid Repeated Freeze Thaw Cycles.

Product Preparation
Functional grade preclinical antibodies are manufactured in an animal free facility using in vitro cell culture techniques and are purified by a multi-step process including the use of protein A or G to assure extremely low levels of endotoxins, leachable protein A or aggregates.

Pathogen Testing
To protect mouse colonies from infection by pathogens and to assure that experimental preclinical data is not affected by such pathogens, all of Leinco's Purified Functional PLATINUMTM antibodies are tested and guaranteed to be negative for all pathogens in the IDEXX IMPACT I Mouse Profile.

Applications
Applications and Recommended Usage (Quality Tested By Leinco):

FC The suggested concentration for this HLA-A,B,C Clone W6/32 antibody for staining cells in flow cytometry is ≤ 2.0 µg per 106 cells in a volume of 100 µl or 100µl of whole blood. Titration of the reagent is recommended for optimal performance for each application.

WB The suggested concentration for for use in western blotting is 1-10 µg/ml. WB Bit1 antibody can be used for the detection of Bit1 by Western blot at 1 - 4 µg/mL.

Other Applications Reported in Literature:
B
PhenoCycler-Fusion (CODEX)®
IHC FF
IP

Country of Origin
USA

References
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