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HLA-F Antibody
Purified Mouse Monoclonal Antibody (Mab)
Catalog # AM8705b

Specification

HLA-F Antibody - Product Information

Application	**WB,E**
Primary Accession	P30511
Reactivity	**Human**
Predicted	**Human**
Host	**Mouse**
Clonality	**monoclonal**
Isotype	**IgG1,κ**

HLA-F Antibody - Additional Information

Gene ID 3134

Other Names
HLA class I histocompatibility antigen, alpha chain F, CDA12, HLA F antigen, Leukocyte antigen F, MHC class I antigen F, HLA-F, HLA-5.4, HLAF

Target/Specificity
This HLA-F antibody is generated from a mouse immunized with a recombinate protein from the human region of human HLA-F.

Dilution
WB~~1:1000
E~~Use at an assay dependent concentration.

Format
Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, followed by dialysis against PBS.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
HLA-F Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

HLA-F Antibody - Protein Information

Name HLAF

Function Non-classical major histocompatibility class Ib molecule postulated to play a role in immune surveillance, immune tolerance and inflammation. Functions in two forms, as a heterotrimeric complex with B2M/beta-2 microglobulin and a peptide (peptide-bound HLA-F-B2M)

and as an open conformer (OC) devoid of peptide and B2M (peptide-free OC). In complex with B2M, presents non-canonical self-peptides carrying post- translational modifications, particularly phosphorylated self-peptides. Peptide-bound HLA-F-B2M acts as a ligand for LILRB1 inhibitory receptor, a major player in maternal-fetal tolerance. Peptide-free OC acts as a ligand for KIR3DS1 and KIR3DL2 receptors (PubMed:28636952). Upon interaction with activating KIR3DS1 receptor on NK cells, triggers NK cell degranulation and anti-viral cytokine production (PubMed:27455421). Through interaction with KIR3DL2 receptor, inhibits NK and T cell effector functions (PubMed:24018270). May interact with other MHC class I OCs to cross-present exogenous viral, tumor or minor histompatibility antigens to cytotoxic CD8+ T cells, triggering effector and memory responses (PubMed:23851683). May play a role in inflammatory responses in the peripheral nervous system. Through interaction with KIR3DL2, may protect motor neurons from astrocyte-induced toxicity (PubMed:26928464).

Cellular Location
Cell membrane; Single-pass type I membrane protein. Early endosome membrane. Lysosome membrane. Note=For cross-presentation transits from the cell surface through endosomal pathway to lysosomes, where the peptide is generated from internalized exogenous antigen

Tissue Location
Expressed in resting B cells (at protein level). Expressed in secondary lymphoid organs rich in B and T cells such as the tonsils, spleen, and thymus (at protein level) (PubMed:10605026, PubMed:11169396). Expressed in the endothelial cells of the tonsils (PubMed:11169396). Expressed on activated lymphoid cells including B cells, NK cells, CD4+ T cells and memory T cells (at protein level) (PubMed:20865824, PubMed:27455421). Expressed in motor neurons of spinal cord (PubMed:26928464).

HLA-F Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

HLA-F Antibody - Images

HLA-F Antibody - Background

Involved in the presentation of foreign antigens to the immune system.

HLA-F Antibody - References

Geraghty D.E.,et al.J. Exp. Med. 171:1-18(1990).
Lury D.,et al.Int. Immunol. 2:531-537(1990).
Hampe A.,et al.DNA Seq. 10:263-299(1999).
He X.,et al.Tissue Antigens 63:181-183(2004).
Pyo C.W.,et al.Immunogenetics 58:241-251(2006).