

# **HLA-F Antibody**

Purified Mouse Monoclonal Antibody (Mab) Catalog # AM8681b

#### **Product Information**

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

**Clone Names** 2010CT523.67.51

Calculated MW 39062

# **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.

### **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).

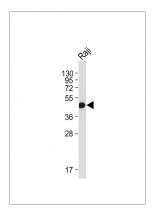
# **Background**

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

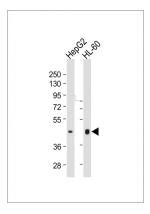
#### References

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).

# **Images**



Anti-HLA-F Antibody at 1:2000 dilution + Raji whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-mouse IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size: 50 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



All lanes: Anti-HLA-F Antibody at 1:1000 dilution Lane 1: HL-60 whole cell lysate Lane 2: HepG2 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-mouse IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size: 50 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.