

Anti-HLA-F Antibody

Catalog # AP95864

Product Information

Application	WB, FC
Primary Accession	P30511
Reactivity	Human, Mouse, Rat
Host	Mouse
Clonality	Monoclonal
Calculated MW	39062

Additional Information

Gene ID	3134
Other Names	HLA-5.4; HLA-F; HLA class I histocompatibility antigen, alpha chain F; CDA12; HLA F antigen; Leukocyte antigen F; MHC class I antigen F
Target/Specificity	Recombinant fusion protein of human HLA-F expressed in E. Coli
Dilution	WB~~WB (1/500 - 1/1000) FC~~FC (1/100 - 1/200)
Format	Mouse IgG2b. Liquid in PBS, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C. Stable for 12 months from date of receipt

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 histocompatibility 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](#)).

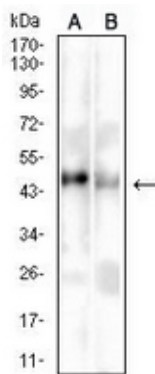
Cellular Location

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

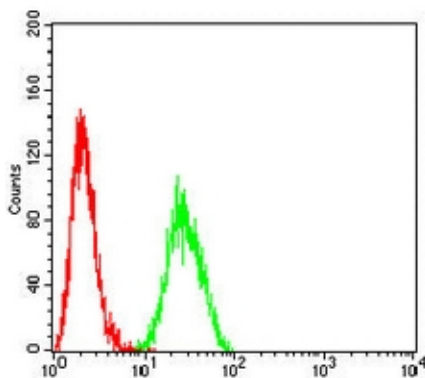
Tissue Location

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).

Images



Western blot analysis of HLA-F expression in mouse liver (A), rat liver (B) whole cell lysates. (Predicted band size: 39 kD; Observed band size: 46 kD)



Flow cytometric analysis of THP1 cells using Anti-HLA-F Antibody (green) and negative control (red).

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