

## ARG42467 anti-HLA F antibody [3D11] (PE)

Package: 50 µg  
Store at: 4°C

### Summary

Product Description	PE-conjugated Mouse Monoclonal antibody [3D11] recognizes HLA F
Tested Reactivity	Hu
Tested Application	FACS
Specificity	The mouse monoclonal antibody 3D11 recognizes an extracellular epitope of HLA-F, a 42 kDa type I transmembrane protein expressed on B cells, NK cells, monocytes, and T cells, but mainly in the endoplasmic reticulum and Golgi apparatus, only a small amount on the cell surface, where, however, it can be expressed after cell activation.
Host	Mouse
Clonality	Monoclonal
Clone	3D11
Isotype	IgG1
Target Name	HLA F
Species	Human
Immunogen	Inclusion body-derived HLA F heavy chain.
Conjugation	PE
Alternate Names	HLA-CDA12; Leukocyte antigen F; HLA F antigen; MHC class I antigen F; HLA-5.4; HLAF; HLA class I histocompatibility antigen, alpha chain F; CDA12

### Application Instructions

Application table	Application	Dilution
	FACS	1 - 5 µg/ml

**Application Note** \* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

### Properties

Form	Liquid
Purification	Purified
Buffer	PBS and 15 mM Sodium azide.
Preservative	15 mM Sodium azide
Concentration	0.1 mg/ml
Storage instruction	Aliquot and store in the dark at 2-8°C. Keep protected from prolonged exposure to light. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.

**Note** For laboratory research only, not for drug, diagnostic or other use.

## Bioinformation

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<b>Gene Symbol</b>	HLA-F
<b>Gene Full Name</b>	major histocompatibility complex, class I, F
<b>Background</b>	<p>This gene belongs to the HLA class I heavy chain paralogues. It encodes a non-classical heavy chain that forms a heterodimer with a beta-2 microglobulin light chain, with the heavy chain anchored in the membrane. Unlike most other HLA heavy chains, this molecule is localized in the endoplasmic reticulum and Golgi apparatus, with a small amount present at the cell surface in some cell types. It contains a divergent peptide-binding groove, and is thought to bind a restricted subset of peptides for immune presentation. This gene exhibits few polymorphisms. Multiple transcript variants encoding different isoforms have been found for this gene. These variants lack a coding exon found in transcripts from other HLA paralogues due to an altered splice acceptor site, resulting in a shorter cytoplasmic domain. [provided by RefSeq, Jul 2008]</p>
<b>Function</b>	<p>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). [UniProt]</p>
<b>Calculated Mw</b>	39 kDa
<b>Cellular Localization</b>	Membrane; Single-pass type I membrane protein. [UniProt]