

ARG42462
anti-HLA F antibody [3D11]Package: 100 µg
Store at: -20°C

Summary

Product Description	Mouse Monoclonal antibody [3D11] recognizes HLA F
Tested Reactivity	Hu
Tested Application	FACS, WB
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	Un-conjugated
Alternate Names	HLA-CDA12; Leukocyte antigen F; HLA F antigen; MHC class I antigen F; HLA-5.4; HLA-F; HLA class I histocompatibility antigen, alpha chain F; CDA12

Application Instructions

Application table	Application	Dilution
	FACS	1 - 5 µg/ml
	WB	Assay-dependent
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	

Properties

Form	Liquid
Purification	Purification with Protein A.
Buffer	PBS and 15 mM Sodium azide.
Preservative	15 mM Sodium azide
Concentration	1 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. 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

Gene Symbol	HLA-F
Gene Full Name	major histocompatibility complex, class I, F
Background	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]
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). [UniProt]
Calculated Mw	39 kDa
Cellular Localization	Membrane; Single-pass type I membrane protein. [UniProt]