Human LILRB2/CD85d/ILT4 Alexa Fluor® 647-conjugated Antibody

Monoclonal Mouse IgG_{2A} Clone # 287219

Catalog Number: FAB2078R

100 µg

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human LILRB2/CD85d/ILT4 in direct ELISAs and Western blots. In direct ELISAs and Western blots, no cross-reactivity with recombinant human (rh) ILT1, rhILT2, rhILT3, rhILT6, rhILT7, rhILT11, rhLIR6 or rhLIR8 is observed.
Source	Monoclonal Mouse IgG_{2A} Clone # 287219
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human LILRB2/CD85d/ILT4 Gly24-His458 Accession # ACT64556
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 nm
Formulation	Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

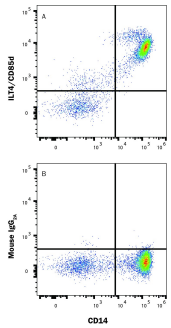
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Flow Cytometry	0.25-1 µg/10^6 cells	Human peripheral blood monocytes

DATA

Flow Cytometry



Detection of LILRB2/CD85d/ILT4 in Human PBMCs by Flow Cytometry. Human peripheral blood mononuclear cells (PBMCs) were stained with Mouse Anti-Human CD14 PE-conjugated Monoclonal Antibody (Catalog # FAB3832P) and either (A) Mouse Anti-Human LILRB2/CD85d/ILT4 Alexa Fluor® 647-conjugated Monoclonal Antibody (Catalog # FAB2078R) or (B) Mouse IgG2AAlexa Fluor 647 Isotype Control (Catalog # IC003R). View our protocol for Staining Membrane-associated Proteins.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Protect from light. Do not freeze.** • 12 months from date of receipt, 2 to 8 °C as supplied.

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BACKGROUND

The immunoglobulin-like transcript (ILT) comprise a family of activating and inhibitory type immunoreceptors whose genes are located in the same locus that encodes killer cell Ig-like receptors (KIR) (1-3). ILT4, also known as LIR-2 and LILRB2, is a type I transmembrane protein expressed primarily on monocytes and dendritic cells (DC) (4). Human ILT4 is produced as a 598 amino acid (aa) precursor including a 21 aa signal sequence, a 440 aa extracellular domain (ECD), a 21 aa transmembrane segment, and a 116 aa cytoplasmic domain. The ECD contains four Ig-like domains, and the cytoplasmic domain contains three immunoreceptor tyrosine-based inhibitory motifs (ITIM) (5). The ECD of human ILT4 shares 76% aa identity with chimpanzee ILT4 and 74%, 81%, 33%, 52%, 77%, 61%, and 64 % aa identity with human ILT1, 2, 3, 5, 6, 7, and 8, respectively. ILT4 binds to classical MHC I proteins as well as the non-classical HLA-G1 and HLA-F molecules (5-9). It competes with CD8α for MHC I binding but does not compete with KIR2DL1 (7). Ligation of ILT4 induces Tyr phosphorylation within its cytoplasmic ITIMs, a requirement for association with SHP-1 (4, 6). Activation of ILT4 inhibits signaling through Fcγ RI (4) and Fcε RI (6) and causes DC to become tolerogenic by downregulation of costimulatory molecules (10, 11). ILT4 mediates tolerogenic DC-induced $CD4^+$ T cell energy *in vitro* and *in vivo* (10-12).

References:

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PRODUCT SPECIFIC NOTICES

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