

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human LILRB4/CD85k/ILT3 in direct ELISA.
Source	Monoclonal Mouse IgG _{2A} Clone # 1057706
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line, NS0-derived recombinant human LILRB4/CD85k/ILT3 protein Pro17-His257 Accession # ABM86208
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

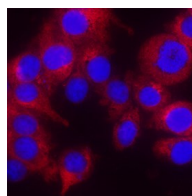
APPLICATIONS

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.

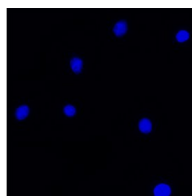
	Recommended Concentration	Sample
Flow Cytometry	0.25 µg/10 ⁶ cells	PBMCs with CD123 costain
Immunocytochemistry	3-25 µg/mL	Immersion fixed Transfected & Wild Type HEK293 Human Embryonic Kidney Cell Line

DATA

Immunocytochemistry



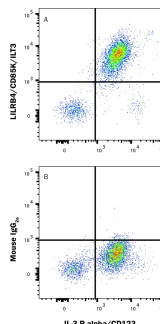
Transfected HEK (Positive) cells



Wild-Type HEK (Negative) cells

Detection of LILRB4/CD85k/ILT3 in Transfected & Wild Type HEK293. LILRB4/CD85k/ILT3 was detected in immersion fixed Transfected & Wild Type HEK293 Human Embryonic Kidney Cell Line using Mouse Anti-Human LILRB4/CD85k/ILT3 Monoclonal Antibody (Catalog # MAB24252) at 3 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (blue). Specific staining was localized to Cytoplasm. View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

Flow Cytometry



Detection of LILRB4/CD85k/ILT3 in PBMCs with CD123 costain cells by Flow Cytometry. PBMCs with CD123 costain were stained with Mouse Anti-Human IL-3R alpha/CD123 PE-conjugated Monoclonal Antibody (Catalog # FAB301P) and either (A) Mouse Anti-Human LILRB4/CD85k/ILT3 Monoclonal Antibody (Catalog # MAB24252) or (B) Mouse IgG_{2A} Isotype Control (Catalog # MAB003) followed by Allophycocyanin-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # F0101B). View our protocol for [Staining Membrane-associated Proteins](#).

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 °C as supplied. 1 month, 2 to 8 °C under sterile conditions after reconstitution. 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

ILT3, also known as CD85k and LIR-5, is an approximately 60 kDa transmembrane glycoprotein that negatively regulates immune cell activation (1). Mature human ILT3 consists of a 238 amino acid (aa) extracellular domain with two Ig-like domains, a 21 aa transmembrane segment, and a 168 aa cytoplasmic domain with 3 immunoreceptor tyrosine-based inhibitory motifs (ITIM) (2). Alternative splicing of human ILT3 generates an isoform that lacks the first ITIM and a secreted isoform that circulates in the serum of cancer patients (3, 4). ILT3 is expressed on dendritic cells (DC), monocytes, macrophages, and vascular endothelial cells (EC) (2, 5, 6). Ligation of ILT3 triggers ITIM-mediated inhibition of cell-activating signaling, leading to enhanced immune tolerance and reduced allogeneic graft rejection (2, 4, 7, 8). Soluble ILT3 induces the differentiation of CD8⁺ T suppressor cells (Ts) that can inhibit the effector functions of CD4⁺ Th cells and CD8⁺ CTL (4, 7, 9). In turn, CD8⁺ Ts cells induce ILT3 up-regulation and a tolerogenic phenotype in monocytes, DC, and EC (5, 6, 8, 10, 11).

References:

1. Vlad, G. *et al.* (2010) *Int. Rev. Immunol.* **29**:119.
2. Cella, M. *et al.* (1997) *J. Exp. Med.* **185**:1743.
3. Heinzmann, A. *et al.* (2000) *Eur. J. Immunogenet.* **27**:121.
4. Suciu-Foca, N. *et al.* (2007) *J. Immunol.* **178**:7432.
5. Gleissner, C.A. *et al.* (2007) *Eur. J. Immunol.* **37**:177.
6. Manavalan, J.S. *et al.* (2004) *Int. Immunol.* **16**:1055.
7. Vlad, G. and N. Suciu-Foca (2012) *Exp. Mol. Pathol.* **93**:294.
8. Chang, C.C. *et al.* (2002) *Nat. Immunol.* **3**:237.
9. Vlad, G. *et al.* (2006) *Int. Immunopharmacol.* **6**:1889.
10. Manavalan, J.S. *et al.* (2003) *Transpl. Immunol.* **11**:245.
11. Brenk, M. *et al.* (2009) *J. Immunol.* **183**:145.