

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human LILRB2/CD85d/ILT4 in direct ELISAs and Western blots. In direct ELISAs and Western blots, approximately 35% cross-reactivity with recombinant human (rh) ILT2 is observed and 5% cross-reactivity with rhILT5 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human LILRB2/CD85d/ILT4 Gly24-His458 Accession # Q8N423
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% 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.

CyTOF-ready	Optimal dilution of this antibody should be experimentally determined.
Neutralization	Optimal dilution of this antibody should be experimentally determined.
Western Blot	Optimal dilution of this antibody should be experimentally determined.
Flow Cytometry	Optimal dilution of this antibody should be experimentally determined.
Immunohistochemistry	Optimal dilution of this antibody should be experimentally determined.

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

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). Ligand 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 down-regulation of co-stimulatory molecules (10, 11). ILT4 mediates tolerogenic DC-induced CD4⁺ T cell energy *in vitro* and *in vivo* (10-12).

PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc, and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.