



Mouse Anti-Human LILRB2/CD85d/ILT4 Monoclonal Antibody, clone 398320 [Functional Grade] (CABT-Z501M)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Specificity	In direct ELISAs and Western blots, no cross-reactivity with recombinant human (rh) ILT1, rhILT2, rhILT3, rhILT6, rhILT7, rhILT11, rhLIR6 or rhLIR8 is observed.
Immunogen	Mouse myeloma cell line NS0-derived recombinant human LILRB2/CD85d/ILT4 (Gly24-His458).
Isotype	IgG2a
Source/Host	Mouse
Species Reactivity	Human
Clone	398320
Purification	Protein A or G purified
Conjugate	Functional Grade
Applications	WB, FC, Neut, ELISA Recommended concentration: WB: 1 µg/mL FC: 0.25 µg/10 ⁶ cells
Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Format	Lyophilized
Size	100 µg

Buffer	PBS with Trehalose. Endotoxin Level<0.10 EU per 1 µg of the antibody by the LAL method.
Preservative	None
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.
Ship	Wet ice

BACKGROUND

Introduction	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). ILT4, also known as LIR-2 and LILRB2, is a type I transmembrane protein expressed primarily on monocytes and dendritic cells (DC). 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). 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. It competes with CD8 alpha 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. Activation of ILT4 inhibits signaling through Fc gamma RI and Fc epsilon RI and causes DC to become tolerogenic by downregulation of costimulatory molecules. ILT4 mediates tolerogenic DC-induced CD4+ T cell energy in vitro and in vivo.
Keywords	LILRB2;leukocyte immunoglobulin-like receptor, subfamily B (with TM and ITIM domains), member 2;leukocyte immunoglobulin-like receptor subfamily B member 2;CD85d;ILT4;LIR 2

GENE INFORMATION

Gene Name	LILRB2
Entrez Gene ID	10288
UniProt ID	A2IXV5