Mouse LAIR1 Antibody

Recombinant Monoclonal Rabbit IgG Clone # 2459C
Catalog Number: MAB10092

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse LAIR1 in direct ELISAs.
Source	Recombinant Monoclonal Rabbit IgG Clone # 2459C
Purification	Protein A or G purified from cell culture supernatant
Immunogen	Mouse myeloma cell line, NS0-derived mouse LAIR1 Gln22-Tyr141 & Ser25-Tyr141 Accession # Q8BG84
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.

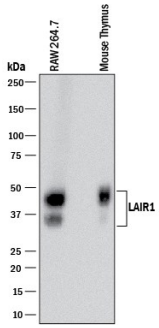
APPLICATIONS

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
Western Blot	2 µg/mL	See Below

DATA

Western Blot



Detection of Mouse LAIR1 by Western Blot. Western blot shows lysates of RAW 264.7 mouse monocyte/macrophage cell line and mouse thymus tissue. PVDF membrane was probed with 2 µg/mL of Rabbit Anti-Mouse LAIR1 Monoclonal Antibody (Catalog # MAB10092) followed by HRP-conjugated Anti-Rabbit IgG Secondary Antibody (Catalog # Catalog # HAF008). Specific bands were detected for LAIR1 at approximately 36-14 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

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.

bio-techne®
Global bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL +1 612 379 2956
USA TEL 800 343 7475 Canada TEL 855 668 8722 China TEL +86 (21) 52380373
Europe | Middle East | Africa TEL +44 (0)1235 529449

Mouse LAIR1 Antibody

Recombinant Monoclonal Rabbit IgG Clone # 2459C
Catalog Number: MAB10092

BACKGROUND

Leukocyte-associated Ig-like receptor-1 (LAIR1; also CD305) is a 46 kDa inhibitory receptor of the Ig superfamily that is structurally related to inhibitory members of KIR and ILT/CD85 families (1-3). It is expressed on immune cells, including NK cells, T cells, B cells, monocytes, immature neutrophils, dendritic cells and most thymocytes (2-4). The 253 amino acid (aa) type I transmembrane (TM) protein contains a 21 aa signal sequence, a 124 aa extracellular domain (ECD), a 20 aa TM domain and a 98 aa cytoplasmic domain. The ECD includes one C2-type Ig-like domain and two potential N-linked glycosylation sites. Tyrosine phosphorylation of two cytoplasmic ITIM motifs results in recruitment of phosphatases and down-regulation of signaling through activating receptors (2, 3, 5). Crosslinking of LAIR1 inhibits processes such as B cell receptor-mediated activation, NK cell and T cell cytotoxicity and basophil degranulation (1-3). Four mouse LAIR1 splice variants have been identified, but it is not known whether they are expressed as proteins (3). LAIR1b, which is the major alternate transcript, lacks most of the ECD. Of the minor transcripts, LAIR1c lacks a signal sequence, and LAIR1d and 1e lack a TM sequence. All mouse splice forms are identical in the last 90 aa of the cytoplasmic domain. LAIR1 shows high-affinity binding of collagens that results in inhibition of degranulation in a basophilic leukemia cell line (6). Human and mouse LAIR1 ECD share only 32% aa identity but, where studied, sites of expression and activity are similar (3-6). Mouse LAIR1 ECD also shares 62%, 31% and 28% aa identity with rat, canine, and bovine orthologs, respectively.

References:

1. Meyaard, L. (2003) J. Biol. Regul. Homeost. Agents **17**:330.
2. Meyaard, L. *et al.* (1997) Immunity **7**:283.
3. Lebbink, R.J. *et al.* (2004) J. Immunol. **172**:5535.
4. Verbrugge, A. *et al.* (2006) J. Leukoc. Biol. **79**:828.
5. Verbrugge, A. *et al.* (2003) Int. Immunol. **15**:1349.
6. Lebbink, R.J. *et al.* (2006) J. Exp. Med. **203**:1419.

bio-techne®
Global bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL +1 612 379 2956
USA TEL 800 343 7475 **Canada** TEL 855 668 8722 **China** TEL +86 (21) 52380373
Europe | Middle East | Africa TEL +44 (0)1235 529449