Mouse NTB-A/SLAMF6 Antibody

Monoclonal Rat IgG_{2A} Clone # 448318

Catalog Number: MAB3986

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse NTB-A/SLAMF6 in direct ELISAs and Western blots. In direct ELISAs, no cross-reactivity with recombinant human NTB-A or recombinant mouse CD84 is observed.
Source	Monoclonal Rat IgG_{2A} Clone # 448318
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse NTB-A/SLAMF6 Glu31-Asn239 Accession # Q9ET39
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	1 µg/mL	Recombinant Mouse NTB-A/SLAMF6 Fc Chimera (Catalog # 3986-NT)

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

NTB-A, also known as Ly108 and SLAMF6, is a 60 kDa type I transmembrane glycoprotein that belongs to the SLAM subgroup of the CD2 family (1). Mature mouse NTB-A consists of a 209 amino acid (aa) ECD with one Ig-like V-type and one Ig-like C2-type domain, a 23 aa transmembrane segment, and an 89 aa cytoplasmic domain with two immunoreceptor tyrosine-based switch motifs ITSMs (2). Within the ECD, mouse NTB-A shares 48% and 70% aa sequence identity with human and rat NTB-A, respectively. The ECD of mouse NTB-A shares 20%-34% aa sequence identity with comparable regions of mouse 2B4, BLAME, CD2F-10, CD84, CD229, CRACC, and SLAM. An alternatively spliced isoform diverges after the second ITSM (2). NTB-A is expressed on the surface of NK, T, and B lymphocytes as well as eosinophils (3-5). It interacts homophilically through weak associations between the Ig-V type domains (5-7). NTB-A functions as an activating coreceptor on NK and T cells (3, 5, 6, 8). Tyrosine phosphorylation in the membrane proximal ITSM enables specific association with EAT-2, an interaction that is required for NTB-A mediated cytotoxicity of NK cells (9). Phosphorylation-dependent NTB-A association with SAP is required for full production of NK cell IFN-γ (5, 9). This interaction is independent of EAT-2 binding and appears to involve the membrane distal ITSM (5, 9). NTB-A deficient mice show weakened Th2 responses and elevated levels of neutrophil-derived inflammatory mediators (10). On B cells, NTB-A modulates immunoglobulin class switching and the balance between tolerance and autoimmunity (5, 11). The isoform with the divergent C-terminal tail is overexpressed in B cells from lupus-prone mice (11).

References:

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