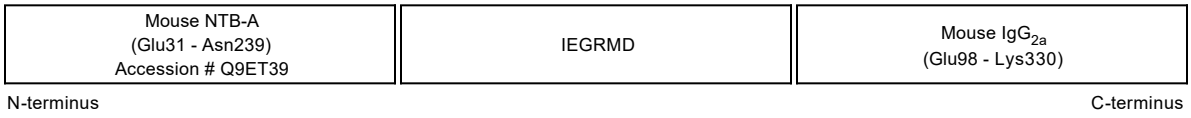
Recombinant Mouse NTB-A/SLAMF6 Fc Chimera

Catalog Number: 3986-NT

DESCRIPTION

Source

Mouse myeloma cell line, NS0-derived



N-terminal Sequence Analysis	Glu31
Structure / Form	Disulfide-linked homodimer
Predicted Molecular Mass	50.0 kDa (monomer)

SPECIFICATIONS

SDS-PAGE	66-90 kDa, reducing conditions
Activity	Measured by its ability to bind biotinylated Recombinant Mouse NTB-A in a functional ELISA. Valdez, P.A. *et al.* (2004) J. Biol. Chem. **279**:18662.
Endotoxin Level	<0.10 EU per 1 µg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE under reducing conditions and visualized by silver stain.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 100 µg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
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. ● 3 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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