

#### DESCRIPTION

|                           |                                                                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Human                                                                                                                                                                                                                                                                       |
| <b>Specificity</b>        | Detects human NTB-A/SLAMF6 in direct ELISAs and Western blots. In direct ELISAs, less than 5% cross-reactivity with recombinant mouse NTB-A/SLAMF6 is observed.                                                                                                             |
| <b>Source</b>             | Polyclonal Goat IgG                                                                                                                                                                                                                                                         |
| <b>Purification</b>       | Antigen Affinity-purified                                                                                                                                                                                                                                                   |
| <b>Immunogen</b>          | Mouse myeloma cell line NS0-derived recombinant human NTB-A/SLAMF6<br>Leu28-Lys225<br>Accession # Q96DU3                                                                                                                                                                    |
| <b>Conjugate</b>          | Alexa Fluor 405<br>Excitation Wavelength: 405 nm<br>Emission Wavelength: 421 nm                                                                                                                                                                                             |
| <b>Formulation</b>        | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide<br><br>*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.

**Western Blot** 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

NTB-A (NK-T-B-antigen), 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 human NTB-A contains a 205 amino acid (aa) extracellular domain (ECD) with one Ig-like V-set and one Ig-like C2-set domain. It also contains a 21 aa transmembrane segment and an 84 aa cytoplasmic domain with two immunoreceptor tyrosine-based switch motifs (ITSMs) (2, 3). An alternately spliced isoform is truncated in the cytoplasmic domain and lacks the two ITSMs. Within the ECD, human NTB-A shares 48% aa sequence identity with mouse and rat NTB-A. The ECD of human NTB-A shares 19%-34% aa sequence identity with comparable regions of human 2B4, BLAME, CD2F-10, CD84, CD229, CRACC, and SLAM. NTB-A is expressed on the surface of NK, T, and B lymphocytes as well as eosinophils (2, 4, 5). It interacts homophilically through weak associations between the Ig-V domains (2, 5-7). NTB-A functions as an activating coreceptor on NK and T cells (2, 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 IFN-γ by NK cells (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).

#### PRODUCT SPECIFIC NOTICES

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