

## DESCRIPTION

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| <b>Species Reactivity</b>   | Mouse  |
| <b>Specificity</b>  | Detects mouse NKp46 in direct ELISAs and Western blots. In direct ELISAs and Western blots, this antibody shows 10 - 20% cross-reactivity with recombinant human (rh) NKp46 and no cross-reactivity with rhNKp30 or rhNKp80. |
| <b>Source</b>   | Monoclonal Rat IgG <sub>2A</sub> Clone # 259018  |
| <b>Purification</b>   | Protein A or G purified from hybridoma culture supernatant   |
| <b>Immunogen</b>  | Mouse myeloma cell line NS0-derived recombinant mouse NKp46<br>Glu22-Asn255<br>Accession # Q8C567  |
| <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   |
| *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

NKp46, along with NKp30 and NKp44, are activating receptors that have been collectively termed the natural cytotoxicity receptors (NCR) (1). These receptors are expressed almost exclusively by NK cells and play a major role in triggering some of the key lytic activities of NK cells. In human systems, the CD56<sup>dim</sup>CD16<sup>+</sup> subpopulation that makes up the majority of NK cells in the peripheral blood and spleen expresses NKp46 in both resting and activated states (2). The main NK cell population of the lymph node (CD56<sup>bright</sup>CD16<sup>-</sup>) expresses low levels of NKp46 in resting cells, but expression is upregulated by IL-2. Mouse NKp46, also known as MAR-1 (3), is a type I transmembrane protein with two extracellular Ig-like domains. It has a positive charge in its transmembrane domain that permits association with the ITAM-bearing signal adapter proteins, CD3ζ and Fcε Rly (4). Studies with neutralizing antibodies indicate that the three NCR are primarily responsible for triggering the NK-mediated lysis of many human tumor cell lines. Blocking any of the NCRs individually resulted in partial inhibition of tumor cell lysis, but nearly complete inhibition of lysis was observed if all three receptors were blocked simultaneously (5). NKp46 has also been implicated in recognition of virus-infected cells through its capacity to bind to viral hemagglutinins (6 - 8).

## PRODUCT SPECIFIC NOTICES

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