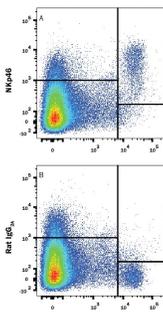


DESCRIPTION	
Species Reactivity	Mouse
Specificity	Detects mouse NKp46/NCR1 in direct ELISAs. In direct ELISAs, no cross-reactivity with recombinant human (rh) NKp30, rhNKp44, rhNKp46, or rhNKp80 is observed.
Source	Monoclonal Rat IgG _{2A} Clone # 29A1.4
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Murine myeloma cell line NSO-derived recombinant mouse NKp46-Fc chimera Glu22-Asn255 Accession # Q8C567
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. <i>General Protocols</i> are available in the <i>Technical Information</i> section on our website.	
	Recommended Concentration Sample
Flow Cytometry	0.25 µg/10 ⁶ cells See Below
CytoF-reported	Spitzer, M. <i>et al.</i> (2015) <i>Science</i> 349 : 1259425. Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.

DATA

Flow Cytometry



Detection of NKp46/NCR1 in Mouse Splenocytes by Flow Cytometry. Mouse splenocytes were stained with (A) Rat Anti-Mouse NKp46/NCR1 Monoclonal Antibody (Catalog # MAB22252) or (B) Rat IgG_{2A} Isotype Control Antibody (Catalog # MAB006) followed by APC-conjugated Anti-Rat IgG Secondary Antibody (Catalog # F0113) and anti-Mouse NK1.1 PE-conjugated Monoclonal Antibody (Catalog # FAB8319P). View our protocol for [Staining Membrane-associated Proteins](#).

PREPARATION AND STORAGE	
Reconstitution	Sterile PBS to a final concentration of 0.5 mg/mL.
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. <ul style="list-style-type: none"> ● 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

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^{dim}CD16⁺ 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^{bright}CD16⁻) 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, CD3 ζ and Fc ϵ R1 γ (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).

References:

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