Human NKp46/NCR1 Alexa Fluor® 488-conjugated Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF1850G
100 µg

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human NKp46 in direct ELISAs and Western blots. In direct ELISAs, less than 5% cross-reactivity with recombinant mouse NKp46 (MAR-1) is observed and less than 1% cross-reactivity with recombinant human (rh) NKp30, rhNKp44, and rhNKp80 is obse
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human NKp46/NCR1 Gln22-Asn254 Accession # AAH64806
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
Formulation	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.
Immunocytochemistry	Optimal dilution of this antibody should be experimentally determined.
Immunohistochemistry	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 lack significant sequence homology to one another. They are expressed almost exclusively by NK cells and play a major role in triggering some of the key lytic activities of NK cells. 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 up-regulated by IL-2. NKp46 is a type I transmembrane protein with two extracellular Ig-like domains followed by a short stalk region, a transmembrane domain containing a positively charged amino acid residue, and a short cytoplasmic tail. Through its positive charge in the transmembrane domain, NKp46 associates with the ITAM-bearing signal adapter proteins, CD3ζ and FcεR1γ, which are able to form disulfide-linked homodimers and heterodimers (3, 8). Studies with neutralizing antibodies indicate that the three NCRs 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 (4). NKp46 has also been implicated in recognition of virus-infected cells through its capacity to bind to viral hemagglutinins (5-7). Human NKp46 shares 58% and 59% amino acid sequence identity with the mouse and rat proteins, respectively.

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