

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human NKp30/NCR3 on cell transfectants and peripheral blood NK cells.
Source	Monoclonal Mouse IgG _{2A} Clone # 210845
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse T cell hybridoma transfected with human NKp30/NCR3 and Mouse myeloma cell line NS0-derived recombinant human NKp30 Fc Chimera
Conjugate	Alexa Fluor 700 Excitation Wavelength: 675-700 nm Emission Wavelength: 723 nm
Formulation	Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *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.

	Recommended Concentration	Sample
Flow Cytometry	0.25-1 µg/10 ⁶ cells	Human whole blood CD56 ⁺ natural killer cells

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. <ul style="list-style-type: none"> 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND

NKp30, along with NKp44 and NKp46, constitute a group of receptors termed "Natural Cytotoxicity Receptors" (1). These receptors play a major role in triggering NK-mediated killing of most tumor cell lines. NKp30 is a type I transmembrane protein having a single extracellular V-like immunoglobulin domain (2). A physical association with the ITAM-bearing accessory protein, CD3ζ, occurs via a charged residue in the NKp30 transmembrane domain. Ligand of NKp30 with a specific antibody results in phosphorylation of CD3ζ (3). NKp30 is expressed on both resting and activated NK cells of the CD56^{dim}, CD16⁺ subset that account for more than 85% of NK cells found in peripheral blood and spleen (4). NKp30 is absent from the CD56^{bright}, CD16⁻ subset that constitutes the majority of NK cells in lymph node and tonsil, however, its expression is up-regulated in these cells upon IL-2 activation (4). Studies with neutralizing antibodies reveal that NKp30 is partially responsible for triggering lytic activity against several tumor cell types and that it is the main receptor responsible for NK-mediated lysis of immature dendritic cells (2, 5). The ligand(s) recognized by NKp30 has not been described.

References:

1. Moretta, L. and A. Moretta (2004) *EMBO J.* **23**:255.
2. Pende, D. *et al.* (1999) *J. Exp. Med.* **190**:1505.
3. Augugliaro, R. *et al.* (2003) *Eur. J. Immunol.* **33**:1235.
4. Ferlazzo, G. *et al.* (2004) *J. Immunol.* **172**:1455.
5. Ferlazzo, G. *et al.* (2002) *J. Exp. Med.* **195**:343.

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