

NKp44/NCR2 Protein, Human, Recombinant (His), Biotinylated

General Information

Synonyms:	RP1-149M18.2;CD336;natural cytotoxicity triggering receptor 2;NK-p44;NKP44;dJ149M18.1;LY95
Protein Construction:	A DNA sequence encoding the human NCR2 (NP_004819.2) extracellular domain (Met1-Pro190) was fused with a polyhistidine tag at the C-terminus. The purified protein was biotinylated in vitro. Predicted N terminal: Gln 22
Species:	Human
Expression Host:	HEK293 Cells
Accession:	O95944-1
Molecular Weight:	20 kDa (predicted)

QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 88 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Natural cytotoxicity triggering receptor 2 (NCR2), also known as Natural killer cell p44-related protein (NKp44), or CD336, is a member of the natural cytotoxicity receptor (NCR) family, which composed of one Ig-like extracellular domain, a transmembrane segment, and a cytoplasmic domain. It is a novel transmembrane glycoprotein

belonging to the Immunoglobulin superfamily characterized by a single extracellular V-type domain. The cytoplasmic domain of NKp44 also contains a sequence that matches the immunoreceptor tyrosine-based inhibitory motif (ITIM) consensus. This Cytotoxicity-activating receptor may contribute to the increased efficiency of activated natural killer (NK) cells to mediate tumor cell lysis. NKp44 is selectively expressed by IL-2-activated NK cells and may contribute to the increased efficiency of activated NK cells to mediate tumor cell lysis. Tumor cell recognition of the mutated NKp44 proteins was significantly reduced and correlated with their lower recognition of heparin.

Reference

- Vitale M, et al. (1998) NKp44, a novel triggering surface molecule specifically expressed by activated natural killer cells, is involved in non-major histocompatibility complex-restricted tumor cell lysis. *J Exp Med.* 187(12): 2065-72.
- Cantoni C, et al. (1999) NKp44, a triggering receptor involved in tumor cell lysis by activated human natural killer cells, is a novel member of the immunoglobulin superfamily. *J Exp Med.* 189: 787-96.
- Cantoni C, et al. (2003) The three-dimensional structure of the human NK cell receptor NKp44, a triggering partner in natural cytotoxicity. *Structure.* 11(6): 725-34.
- Campbell KS, et al. (2004) NKp44 triggers NK cell activation through DAP12 association that is not influenced by a putative cytoplasmic inhibitory sequence. *J Immunol.* 172(2): 899-906.
- Hershkovitz O, et al. (2007) Characterization of the recognition of tumor cells by the natural cytotoxicity receptor, NKp44. *Biochemistry.* 46(25): 7426-36.

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