

NKp46/NCR1 Protein, Human (HEK293, Fc)

Cat. No.:	HY-P70174
Synonyms:	rHuNatural Cytotoxicity Triggering Receptor 1/NCR1, Fc; Natural cytotoxicity triggering receptor 1; Lymphocyte antigen 94 homolog; NK cell-activating receptor; Natural killer cell p46-related protein; NK-p46; NKp46; hNKp46; CD335; NCR1; LY94;
Species:	Human
Source:	HEK293
Accession:	O76036-6/AAH64806 (Q22-D254)
Gene ID:	9437
Molecular Weight:	Approximately 66.0 kDa

PROPERTIES

AA Sequence	<pre> Q Q Q T L P K P F I W A E P H F M V P K E K Q V T I C C Q G N Y G A V E Y Q L H F E G S L F A V D R P K P P E R I N K V K F Y I P D M N S R M A G Q Y S C I Y R V G E L W S E P S N L L D L V V T E M Y D T P T L S V H P G P E V I S G E K V T F Y C R L D T A T S M F L L L K E G R S S H V Q R G Y G K V Q A E F P L G P V T T A H R G T Y R C F G S Y N N H A W S F P S E P V K L L V T G D I E N T S L A P E D P T F P D T W G T Y L L T T E T G L Q K D H A L W D H T A Q N </pre>
Appearance	Lyophilized powder
Formulation	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	<p>NKp46 is a ~46 kDa type 1 transmembrane glycoprotein characterized by a 30 a.a. intracellular tail, 20 a.a. transmembrane domain, and two extracellular Ig-like domains that are contacted through a 25 a.a short peptide. NKp46 is a novel triggering receptor that is involved in natural cytotoxicity^[1].</p> <p>NKp46 is uniquely expressed on all NK cell subsets and has been suggested as a possible target for NK cell ablation and as a pan NK cell marker. Distinct among the NCRs, NKp46 (NCR1) is evolutionary conserved between mice and humans. knock-down of NKp46 in primary human NK cells decreased recruitment of F-actin to the synapse^[1].</p>
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NKp46 contributes to clearance of *Streptococcus pneumoniae* by interacting with infected alveolar macrophages. Targeting of NK cells using an NKp46 antibody can attenuate type 1 diabetes progression in mice. NKp46 also regulates graft-versus-host disease and allergic response. Following the initiation of an NK-target cell interaction, NKp46 clusters at the cell membrane, specifically at the immune synapse. At the immune synapse, NKp46 mediates cytoskeletal rearrangement and cellular polarization^[1].

Cross-linking of NKp46 led to a strong NK cell activation resulting in induction of Ca²⁺ mobilization, cytotoxicity and lymphokine release^[2].

The natural cytotoxicity receptor (NCR) family that includes NKp30, NKp44, and NKp46 is the biggest family of activating human NK-cell receptors. NKp46 is the only NCR member that has a mouse orthologue, named Ncr1. The first ligand identified for NKp46/NCR1 receptors is the hemagglutinin (HA) protein of influenza virus^[3].

Caution: Product has not been fully validated for medical applications. For research use only.

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