



RayBiotech, Inc.

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Certificate of Analysis and Data Sheet

Recombinant Human

Natural Cytotoxicity Receptor NKp46

Catalog No.
228-11157

Source:
Escherichia coli

Synonyms:

Natural cytotoxicity triggering receptor 1, Natural killer cell p46-related protein, hNKp46, NK-p46, NKp46, NK cell-activating receptor, Lymphocyte antigen 94 homolog, CD335 antigen, NCR1, LY94, NCRNKp46, CD335.

Introduction:

A natural cytotoxicity receptor (NCR) NKp46 has been shown to represent a novel NK cell-specific molecule involved in human NK cell activation. The natural cytotoxicity receptors (NCRs) are a recently characterized family of Ig-like activation receptors that appear to be major triggering receptors in tumor cell recognition. The three known NCRs include NKp46 and NKp30, which are expressed on circulating NK cells, and NKp44, which is expressed only on activating NK cells. NKp46 has been implicated in NK cell-mediated lysis of several autologous tumor cells, pathogen-infected cell lines and mononuclear phagocytes infected with an intracellular bacterium. The lysis of tumor cells by NK-cells involves recognition by NKp46 of heparan sulfate moieties of membrane heparan sulfate proteoglycans. Furthermore, NKp46 is a surface receptor involved in NK-cell cell death by apoptosis. NKp46 has two extracellular Ig-like domains followed by a ~40 residue stalk region, a type I transmembrane domain, and a short cytoplasmic tail. The extracellular Ig-like domain of NKp46 (22-255aa) is purified by FPLC gel-filtration chromatography, after refolding of the isolated inclusion bodies in a redox buffer. In addition, engagement of the antigen with the monoclonal antibody stimulates intracellular calcium levels and the synthesis of cytokines. CD59 is an NKp46 coreceptor (by physical association) together they activate cytotoxicity of human NK-cells, their engagement results in tyrosine phosphorylation of CD3-zeta chains associated with NKp46. Reduced cell surface expression of NKp46 and other NK-cell receptors is linked to the impaired NK-cell cytolytic function in viremic HIV-1 infection.

Description:

NKp46 Human Recombinant produced in *E. coli* is a single, non-glycosylated polypeptide chain containing 235 amino acids and having a molecular mass of 26.6 kDa.

Source:

Escherichia Coli.

**The products are furnished for LABORATORY RESEARCH USE ONLY.
Not for diagnostic or therapeutic use.**



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Physical Appearance:

Sterile filtered colorless solution.

Formulation:

The protein contains phosphate buffered saline (pH7.4) & 1mM EDTA.

Stability:

Store at 4°C if entire vial will be used within 2-4 weeks.

Store, frozen at -20°C for longer periods of time.

For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).

Avoid multiple freeze-thaw cycles.

Purity:

Greater than 95.0% as determined by:

(a) Analysis by RP-HPLC.

(b) Analysis by SDS-PAGE.

Sequence:

MQQQTLPKPF IWAEPHFMVP KEKQVTICCQ GNYGAVEYQL HFEGSLFAVD RPKPPERINK
VKFYIPDMNS RMAGQYSCIY RVGELWSEPS NLLDLVVTEM YDTPTLSVHP GPEVISGEEV
TFYCRLDTAT SMFLLLKEGR SSHVQRGYK VQAEFPLGPV TTAHRGTYRX FGSYNNHAWS
FPSEPVKLLV TGDIENTSLA PEDPTFSADT WGTYLLTTET GLQKDHALLD HTAQN

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