Data Sheet (Cat.No.TMPY-01145)

TargetMol

NKp30/NCR3 Protein, Human, Recombinant (His)

General Information

Synonyms:	NCR3;natural cytotoxicity triggering receptor 3;CD337;1C7;DAAP-90L16.3;MALS;NKp30;LY117
Protein Construction:	A DNA sequence encoding the extracellular domain (Met 1-Gly 135) of human NCR3 (NP_667341.1) precursor was fused with a polyhistidine tag at the C-terminus. Predicted N terminal: Leu 19
Species:	Human
Expression Host:	HEK293 Cells
Accession:	O14931-1
Molecular Weight:	14.4 kDa (predicted); 22-28 kDa (reducing condition, due to glycosylation)

QC Testing

Biological Activity:	1.Measured by its binding ability in a functional ELISA. 2. Immobilized human NCR3 at 10μg/mL (100μL/well) can bind human B7-H6, the EC50 of human B7-H6 is 20-100ng/mL.
Purity:	≥ 97 % as determined by SDS-PAGE. ≥ 90 % as determined by SEC-HPLC.
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:

Reconstituted with sterile deionized water to 0.25 mg/mL. Reconstitution conditions may vary depending on the lot.

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 3, NCR3, also known as NKp30, or CD337, is a natural cytotoxicity receptor, expressed on subsets of human peripheral blood NK cells, involved in NK cell killing of tumor cells and immature dendritic cells. The cellular ligand for NKp30 has remained elusive, but the membrane-associated heparan sulfate

(HS) proteoglycans are involved in the recognition of cellular targets by NKp30 was recently reported. NKp30 is a member of the immunoglobulin superfamily and one of three existing natural cytotoxicity-triggering receptors. NKp30 is a glycosylated protein and is thought to be selectively expressed in resting and activated natural killer cells. NKp30 is a stimulatory receptor on human NK cells implicated in tumor immunity and is capable of promoting or terminating dendritic cell maturation. NCR3 may play a role in inflammatory and infectious diseases.

Reference

Warren HS,et al.(2005) Evidence that the cellular ligand for the human NK cell activation receptor NKp30 is not a heparan sulfate glycosaminoglycan. J Immunol. 175(1): 207-12.Mulcahy H,et al.(2006) LST1 and NCR3 expression in autoimmune inflammation and in response to IFN-gamma, LPS and microbial infection. Immunogenetics. 57 (12): 893-903.

Hsieh CL,et al.(2006) NKp30 is a functional activation receptor on a subset of rat natural killer cells. Eur J Immunol. 36(8): 2170-80.

Ponnampalam AP,et al.(2008) Identification and hormonal regulation of a novel form of NKp30 in human endometrial epithelium. Eur J Immunol. 38(1): 216-26.