Rhesus NKG2D / KLRK1 Protein (aa 78-216, His Tag)

Catalog Number: **90164-C07B**

Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

KLRK1

Protein Construction:

A DNA sequence encoding the rhesus NKG2D (NP_001028061.1) (Phe78-Val216) was expressed with a polyhistide tag at the N-terminus.

Source: Rhesus

Expression Host: Baculovirus-Insect Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Bio Activity:

1. Immobilized Rhesus His-NKG2D (78-216) at 10 μg/ml (100 μl/well) can bind human ULBP1-Fch (Cat:10679-H03H), The EC_{50} of human ULBP1-Fch (Cat:10679-H03H) is 0.12-0.28 μg/ml. 2. Immobilized Rhesus His-NKG2D (78-216) at 10 μg/ml (100 μl/well) can bind human MICB-Fch (Cat:10759-H03H), The EC50 of human MICB-Fch (Cat:10759-H03H) is 33.8-79 ng/ml.

Endotoxin:

< 1.0 EU per μg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 ℃

Predicted N terminal: His

Molecular Mass:

The recombinant rhesus NKG2D consists of 155 amino acids and has a calculated molecular mass of 18.3 kDa.

Formulation:

Lyophilized from sterile 20mM Tris, 500mM NaCl, 10% glycerol, pH 8.0

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

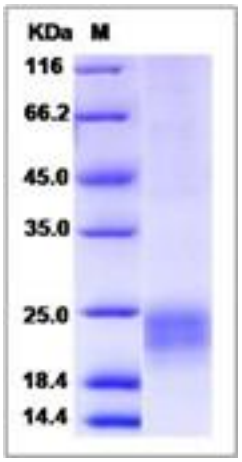
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

NKG2D, also known as CD314, is an immune receptor which consists of two disulphide-linked type II transmembrane proteins with short intracellular proteins uncapable to transduce signals. In order to transduce signals, NKG2D needs adaptor proteins and it uses two adaptor proteins, DAP10 and DAP12. These two adaptor proteins associate as homodimers to NKG2D- therefore the entire receptor complex appears as a hexamer. NKG2D can send co-stimulatory signals to activate CD8 T cells. NKG2D also plays an important role in viral control. Cellular stress can induce ligands for NKG2D which results in the cell susceptible to NK cell-mediated lysis.

References

1.Houchins J, *et al*. (1991) DNA sequence analysis of NKG2, a family of related cDNA clones encoding type II integral membrane proteins on human natural killer cells. J Exp Med. 173: 1017-102. 2.Bauer S, *et al*. (1999) Activation of NK cells and T cells by NKG2D, a receptor for stress-inducible MICA. Science. 285(5428):727-9. 3.Zafirova B, *et al*. (2011) Regulation of immune cell function and differentiation by the NKG2D receptor. Cell Mol Life Sci. 68(21):3519-29.