Recombinant human NKG2D/KLRK1 protein

Catalog Number: ATGP3662

PRODUCT INFORMATION

Expression system
Baculovirus

Domain
73-216aa

UniProt No.
P26718

NCBI Accession No.
NP_031386.2

Alternative Names
Killer cell lectin like receptor K1, Killer cell lectin-like receptor subfamily K member 1, NKG2-D type II integral membrane protein, NK cell receptor D, NKG2-D-activating NK receptor, CD314, NKG2D, KLR, NKG2-D

PRODUCT SPECIFICATION

Molecular Weight
43.9 kDa (386aa)

Concentration
0.5mg/ml (determined by absorbance at 280nm)

Formulation
Liquid in. Phosphate-Buffered Saline (pH 7.4) containing 10% glycerol

Purity
> 95% by SDS-PAGE

Endotoxin level
< 1 EU per 1ug of protein (determined by LAL method)

Biological Activity
Measured by its binding ability in a functional ELISA with Human ULBP-6/RAET1L (CAT# ATGP4023). The ED50 range ≤ 1.5 ug/ml.

Tag
hIgG-His-Tag

Application
SDS-PAGE, Bioactivity

Storage Condition
Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

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BACKGROUND

Description

KLRK1, also known as NKG2D ligand 4 isoform 1, is a type II transmembrane glycoprotein having an extracellular lectin-like domain. This domain lacks the recognizable calcium-binding sites found in true C-type lectins and binds protein rather than carbohydrate ligands. It can send co-stimulatory signals to activate CD8 T cells. Also, it plays an important role in viral control. Cellular stress can induce ligands for KLRK1 which results in the cell susceptible to NK cell-mediated lysis. Recombinant human KLRK1, fused to hIgG-His-tag at C-terminus, was expressed in insect cell and purified by using conventional chromatography techniques.

Amino acid Sequence

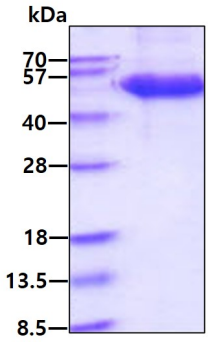
<ADP>IWSAVFL NSLFNQEVQI PLTESYCGPC PKNWICYKNN CYQFFDESKN WYESQASCMS QNASLLKVYS KEDQDLLKLV KSYHWMGLVH IPTNGSWQWE DGSILSPNLL TIIEMQKGDC ALYASSFKGY IENCSTPNTY ICMQRTV<VEP KSCDKTHTCP PCPAPELLGG PSVFLFPPKP KDTLMISRTP EVTCVVVDVS HEDPEVKFNW YVDGVEVHNA KTKPREEQYN STYRVVSVLT VLHQDWLNGK EYKCKVSNKA LPAPIEKTIS KAKGQPREPQ VYTLPPSRDE LTKNQVSLTC LVKGFYPSDI AVEWESNGQP ENNYKTTPPV LDSDGSFFLY SKLTVDKSRW QQGNVFSCSV MHEALHNHYT QKSLSLSPGK HHHHHH>

General References

Bauer S., et al, (1999) Science 285:727-729.
Raulet DH., (2003) Nat. Rev. Immunol. 3:781-790.

DATA

SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.

Biological Activity

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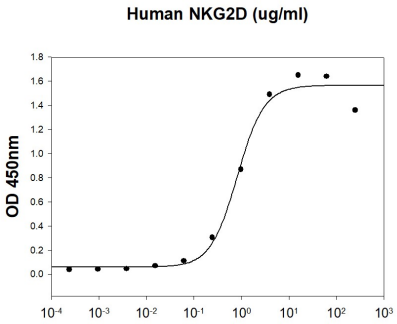

Human ULBP-6/RAET1L (CAT# ATGP4023) is coated at 10 ug/ml (100 ul/well) can bind Human NKG2D. The ED50 range ≤ 1.5 ug/ml.