## **Elabscience**®

## Recombinant Cynomolgus NKG2-D type II Integral Membrane Protein/NKG2D/CD314 (N-6His)

## Catalog Number: PKSQ050115

Note: Centrifuge before opening to ensure complete recovery of vial contents.

Description			
Species	Cynomolgus macaques		
Source	HEK293 Cells-derived Cynomolgus macaques NKG2D/CD314 protein Phe78-Val216,		
	with an N-terminal His		
Calculated MW	16.9 kDa		
Observed MW	22-35 kDa		
Accession	P61252		
Bio-activity	Not validated for activity		
Properties			
Purity	> 95 % as determined by reducing SDS-PAGE.		
Endotoxin	< 1.0 EU per µg of the protein as determined by the LAL method.		
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80		
	°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of		
	reconstituted samples are stable at $< -20^{\circ}$ C for 3 months.		
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.		
Formulation	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4.		
	Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants		
	before lyophilization.		
	Please refer to the specific buffer information in the printed manual.		
Reconstitution	Please refer to the printed manual for detailed information.		

Data

kDa	MK	R	
120 90	=		
60			
40	-		
30	-	-	
20	-	10	
14	-		

> 95 % as determined by reducing SDS-PAGE.

Background

## **Elabscience**®

NKG2-D type II integral membrane protein (NKG2D) is a type II transmembrane glycoprotein which belongs to the CD94/ NKG2 family. NKG2D is expressed on natural killer (NK) cells, CD8+ alpha-beta and gamma-delta T-cells. As an activating and costimulatory receptor, it involved in immunosurveillance upon binding to various cellular stressinducible ligands displayed at the surface of autologous tumor cells and virus-infected cells. It provides both stimulatory and costimulatory innate immune responses on activated killer (NK) cells, leading to cytotoxic activity. It stimulates perforin-mediated elimination of ligand-expressing tumor cells. Signaling involves calcium influx, culminating in the expression of TNF-alpha. NKG2D participates in NK cell-mediated bone marrow graft rejection and survival of NK cells. It Binds to ligands belonging to various subfamilies of MHC class I-related glycoproteins including MICA, MICB, RAET1E, RAET1G, ULBP1, ULBP2, ULBP3 (ULBP2>ULBP1>ULBP3) and ULBP4.