

## Recombinant Human NKG2DL/ULBP-1 Protein (Fc Tag)

**Catalog No.** PKSH032815

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

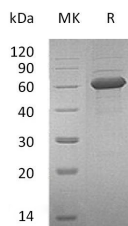
### Description

<b>Synonyms</b>	NKG2D ligand 1;NKG2DL1;ALCAN-beta;Retinoic acid early transcript 1I;UL16-binding protein 1;ULBP1
<b>Species</b>	Human
<b>Expression Host</b>	HEK293 Cells
<b>Sequence</b>	Gly26-Pro215
<b>Accession</b>	Q9BZM6
<b>Calculated Molecular Weight</b>	49.4 kDa
<b>Observed molecular weight</b>	58-70 kDa
<b>Tag</b>	C-Fc
<b>Bioactivity</b>	Not validated for activity

### Properties

<b>Purity</b>	> 95 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 1.0 EU per µg of the protein as determined by the LAL method.
<b>Storage</b>	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°C for 3 months.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
<b>Reconstitution</b>	Please refer to the printed manual for detailed information.

### Data



> 95 % as determined by reducing SDS-PAGE.

### Background

NKG2D ligand 1; also called ULBP1; is a member of UL16-binding protein (ULBP) family which has also been termed

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the retinoic acid early transcript 1 (RAET1) family. Unlike the classical MHC class I molecules and the MIC molecules possess  $\alpha 1$ ;  $\alpha 2$  and  $\alpha 3$  domains; ULBP/RAET1 family members lack  $\alpha 3$  domain. ULBP1 is recognized by the activating receptor NKG2D on the surface of cytotoxic natural killer (NK) and T cells; and then promotes the lysis of cells expressing ULBP1 which is important for the immune surveillance. ULBP1 and several other family members; ULBP2 and ULBP5; own the ability to bind the human cytomegalovirus (CMV) UL16 glycoprotein. The human CMV glycoprotein UL16 binds to intracellular ULBP1 and so inhibits its expression at the cell surface; which reduces the susceptibility of the virus-infected cell to cytotoxic destruction by NK cells. The expression of ULBP1 has been found on some tumor cells and is implicated in tumor surveillance.