# Data Sheet (Cat.No.TMPJ-00131)

## NKG2DL Protein, Human, Recombinant (hFc)

### General Information

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| Synonyms: | ALCAN-β;NKG2DL1;UL16-binding protein 1;NKG2D ligand 1;ULBP1;Retinoic acid early transcript 1I;ALCAN-beta |
| Protein Construction: | Gly26-Pro215 |
| Species: | Human |
| Expression Host: | HEK293 Cells |
| Accession: | Q9BZM6 |
| Molecular Weight: | 58-70 KDa (reducing condition) |
| AA Sequence: | Gly26-Pro215 |

### QC Testing

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| Biological Activity: | Activity has not been tested. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first. |
| Purity: | Greater than 95% as determined by reducing SDS-PAGE. (QC verified) |
| Endotoxin: | < 0.1 ng/μg (1 EU/μg) as determined by LAL test. |
| Formulation: | Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, pH 7.4. |

### Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 μg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

Stability & Storage:

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

NKG2D ligand 1, also called ULBP1, is a member of UL16-binding protein (ULBP) family which has also been termed the retinoic acid early transcript 1 (RAET1) family. Unlike the classical MHC class I molecules and the MIC molecules possess α1, α2 and α3 domains, ULBP/RAET1 family members lack α3 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.



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