



Recombinant Protein Technical Manual
Recombinant Human NKG2DL/ULBP Protein (Fc Tag)
RPES0587

Product Data:

Product SKU: RPES0587

Size: 10µg

Species: Human

Expression host: Human Cells

Uniprot: Q9BZM6

Protein Information:

Molecular Mass: 49.4 kDa

AP Molecular Mass: 58-70 kDa

Tag: C-Fc

Bio-activity:

Purity: > 95 % as determined by reducing SDS-PAGE.

Endotoxin: < 1.0 EU per µg as determined by the LAL method.

Storage: 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.

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, pH7.4.

Reconstitution: Please refer to the printed manual for detailed information.

Application:

Synonyms: NKG2D ligand 1;NKG2DL1;ALCAN-beta;Retinoic acid early transcript 1;UL16-binding protein 1;ULBP1

Immunogen Information:

Sequence: Gly26-Pro215

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 $\alpha 1$, $\alpha 2$ 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.