

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

Catalog Number: PKSH032815

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

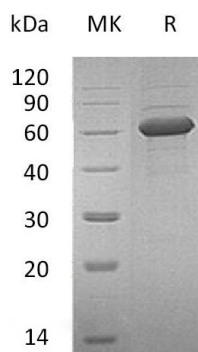
Description

Species	Human
Source	HEK293 Cells-derived Human NKG2DL;ULBP-1 protein Gly26-Pro215, with an C-terminal Fc
Calculated MW	49.4 kDa
Observed MW	58-70 kDa
Accession	Q9BZM6
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°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.
Reconstitution	Please refer to the specific buffer information in the printed manual. 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 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.