Product Name: Recombinant Human NKG2DL (C-6His)
Catalog #: PHH1231

Summary

Name	NKG2D Ligand 1/NKG2DL1/ULBP-1/RAET1I/N2DL1
Purity	Greater than 95% as determined by reducing SDS-PAGE
Endotoxin level	<1 EU/μg as determined by LAL test.
Construction	Recombinant Human UL16 Binding Protein-1/NKG2D Ligand 1 is produced by our Mammalian expression system and the target gene encoding Gly26-Pro215 is expressed with a 6His tag at the C-terminus.
Accession #	Q9BZM6
Host	Human Cells
Species	Human
Predicted Molecular Mass	23.3 KDa
Formulation	Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature listed below.
Stability&Storage	Store at ≤-70°C, stable for 6 months after receipt. Store at ≤-70°C, stable for 3 months under sterile conditions after opening. Please minimize freeze-thaw cycles.
Reconstitution	Always centrifuge tubes before opening. Do not mix by vortex or pipetting. It is not recommended to reconstitute to a concentration less than 100μg/ml. Dissolve the lyophilized protein in distilled water. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.Always centrifuge tubes before opening. Do not mix by vortex or pipetting. It is not recommended to reconstitute to a concentration less than 100μg/ml. Dissolve the lyophilized protein in distilled water. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.

SDS-PAGE image

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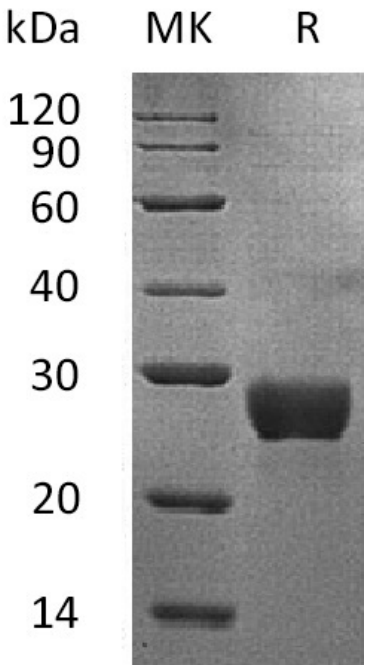

Alternative Names

NKG2D ligand 1; N2DL-1; NKG2DL1; ALCAN-beta; Retinoic acid early transcript 1I; UL16-binding protein 1; ULBP1

Background

ULBP1, also known as RAET1I and NKG2DL1, is a member of the ULBP/RAET1 gene family. ULBP1 plays an important role in immune responses, especially in cancer and infectious diseases, and is well-known to bind to NKG2D together with at least ULBP 2 and 3. These proteins are distantly related to major histocompatibility class I (MHC I) molecules, possessing the alpha 1 and alpha 2 Ig-like domains, but lacking the alpha 3 domain. Unlike MHC Class I, they have no capacity to bind peptide or interact with beta2-microglobulin. It can activate multiple signaling pathways in primary NK cells, gamma delta T cells, and CD8+ alpha beta T cells, resulting in the production of cytokines and chemokines.ULBP1 is expressed in wide range of tissues including heart, brain, lung, liver, bone marrow and some tumor cells, T-cells, B-cells, As an unconventional member of the MHC class I family, ULBP1 is able to interact with soluble CMV glycoprotein UL16 in CMV infected cells. The interaction with UL16 blocked the interaction with the NKG2D receptor, and thus might escape the immune surveillance. Furthermore, UL16 also causes ULBP1 to be retained in the ER and cis-Golgi apparatus so that it does not reach the cell surface. The ULBP1 regulation may have implications for development of new therapeutic strategies against cancer cells.

Note

For Research Use Only , Not for Diagnostic Use.