# Recombinant Human NKG2D ligand 1/ULBP1 Protein



## **RPCB0958**

## **Product Information**

**Product SKU**: RPCB0958 **Gene ID**: 80329 **Size**: 10μg

Tag: C-His&Avi Reactivity: Human

### **Additional Information**

**Expression Host**: HEK293 cells **Swissprot**: Q9BZM6

**Purity**: > 95% by SDS-PAGE.

#### **Protein Information**

Background:

UL16-binding proteins (ULBP) or retinoic acid early transcripts-1 (RAET1) are ligands to the activating receptor, NKG2D. Ten members of the human ULBP/RAET1 gene family have been identified to encode for potentially functional proteins, and have tissue-specific expressions. ULBP1, also known as RAET1I and NKG2DL1, together with at least ULBP 2 and 3, are well-known ligands for NKG2D, and activate multiple signaling pathways in primary NK cells, resulting in the production of cytokines and chemokines. ULBP1 is expressed in T-cells, B-cells, erythroleukemia cell lines and in a wide range of tissues including heart, brain, lung, liver and bone marrow, as well as some tumor cells. As an unconventional member of the MHC class I family, ULBP1 function in immune responses, especially in cancer and infectious diseases. Unlike other ULBP members, 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.

**Protein Description:** 

High quality, high purity and low endotoxin recombinant Recombinant Human NKG2D ligand 1/ULBP1 Protein , tested reactivity in HEK293 cells and has been validated in SDS-PAGE.100% guaranteed.

**Endotoxin**: <0.1EU/μg

**Formulation**: Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4.

**Storage**: Store at -20°C.Store the lyophilized protein at -20°C to -80 °C up to 1 year from the

date of receipt. After reconstitution, the protein solution is stable at -20°C for 3  $\,$ 

months, at 2-8°C for up to 1 week.