

Recombinant Human ULBP1/N2DL1 Protein (His Tag)

Catalog Number: PKSH031492

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

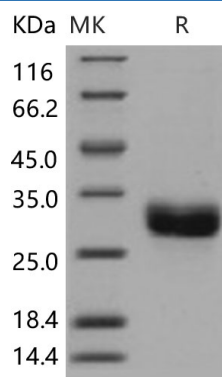
Description

Species	Human
Source	HEK293 Cells-derived Human ULBP1/N2DL1 protein Met 1-Gly 216, with an C-terminal His
Calculated MW	23.8 kDa
Observed MW	28-32 kDa
Accession	NP_079494.1
Bio-activity	Immobilized human ULBP1-His at 10 µg/ml (100 µl/well) can bind human NKG2D, The EC ₅₀ of human NKG2D is 0.39-0.91 µg/ml.

Properties

Purity	> 98 % 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 sterile PBS, pH 7.4 Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 98 % as determined by reducing SDS-PAGE.

Background

For Research Use Only

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.

For Research Use Only

Toll-free: 1-888-852-8623
Web: www.elabscience.com

Tel: 1-832-243-6086
Email: techsupport@elabscience.com

Fax: 1-832-243-6017