Tel:240-252-7368(USA)
Fax:240-252-7376(USA)
www.elabscience.com
E-mail:techsupport@elabscience.com
Elabscience Biotechnology Inc.

Elabscience®

Recombinant Human ULBP1/N2DL1 Protein (His & Fc Tag)(Active)

Catalog No. PKSH031493

Description

Synonyms	RAET1I
Species	Human
Expression_host	HEK293 Cells
Sequence	Met1-Gly216
Accession	NP_079494.1
Mol_Mass	50.4 kDa
AP_Mol_Mass	55-60 kDa
Tag	C-His-Fc
Bio_activity	Immobilized human His-NKG2D (78-216) at 10 μg/ml (100 μl/well) can bind human ULBP1-Fch, The EC50 of human ULBP1-Fch is 0.04-0.08 μg/ml.

Properties

Purity	> 95 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per μg as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80℃. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ 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
Reconstitution	Please refer to the printed manual for detailed 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.

Tel:240-252-7368(USA)
Fax:240-252-7376(USA)
www.elabscience.com
E-mail:techsupport@elabscience.com
Elabscience Biotechnology Inc.

Elabscience®

SDS-PAGE