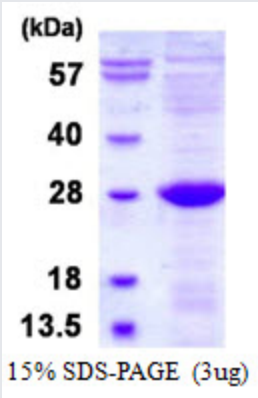
uLBP2 Recombinant Protein

PRODUCT OVERVIEW

Product Name	uLBP2, Recombinant Protein
Full Product Name	uLBP2, 26-216aa, Human, His tag, E Coli (Denatured)
Product Gene Name	uLBP2 recombinant protein
Product Synonym Names	NKG2D ligand 2; N2DL2; RAET1H
Sequence	MGSSHHHHHH SSGLVPRGSH MGSHMGRADP HSLCYDITVI PKFRPGPRWC AVQGQVDEKT FLHYDCGNKT VTPVSPLGKK LNVTTAWKAQ NPVLREVVDI LTEQLRDIQL ENYTPKEPLT LQARMSCEQK AEGHSSGSWQ FSFDGQIFLL FDSEKRMWTT VHPGARKMKE KWENDKVVAM SFHYFSMGDC IGWLEDFLMG MDSTLEPSAG APLAMS
Host	E Coli
Form/Format	Liquid. 20mM Tris-HCl Buffer (pH 8.0) containing 30% glycerol, 2M urea, 0.2M NaCl, 2mM DTT
Purity/Purification	> 85% by SDS-PAGE
Concentration	1 mg/ml (determined by Bradford assay) (lot specific)
Preparation and Storage	Can be stored at 4 degree C short term (1-2 weeks). For long term storage, aliquot and store at -20 degree C or -70 degree C. Avoid repeated freezing and thawing cycles.
Molecular Weight	24.3 kDa (216aa)
OMIM	AF304378 mRNA
3D Structure	ModBase 3D Structure for Q9BZM5
Antigen Species	Human
Tag Information	His-tag
Product Categories/Family for uLBP2 recombinant protein	Immunology
Applications Tested/Suitable for uLBP2 recombinant protein	SDS-PAGE
Related Product Information for uLBP2 recombinant protein	uLBP2, also known as NKG2D ligand 2, belongs to the MHC class I family. This protein is ligand for the NKG2D receptor, together with at least uLBP1 and uLBP3. uLBPs activate multiple signaling pathways in primary NK cells, resulting in the production of cytokines and chemokines. Binding of uLBPs ligands to NKG2D induces calcium mobilization and activation of the JAK2, STAT5, ERK and PI3K kinase/Akt signal transduction pathway. In CMV infected cells, interacts with soluble CMV glycoprotein uL16. The interaction with uL16 blocked the interaction with the NKG2D receptor, providing a mechanism by which CMV infected cells might escape the immune system. uL16 also causes uLBP2 to be retained in the ER and cis-Golgi apparatus so that it does not reach the cell surface. Recombinant human uLBP2 protein, fused to His-tag at N-terminus, was expressed in E Coli.
Product References and Citations for uLBP2 recombinant protein	Cosman D., et al. (2001) Immunity. 14:123-133; Dunn C., et al. (2003) J. Exp. Med. 197:1427-1439
Other Notes	Small volumes of uLBP2 recombinant protein vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for uLBP2 purchase	MBS204457 is a recombinant protein targeting uLBP2. Also known as uLBP2, 26-216aa, Human, His tag, E Coli (Denatured). Host: E Coli.



SDS-Page of uLBP2 recombinant protein

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for uLBP2. It may not necessarily be applicable to this product.

NCBI GI #	13376824
NCBI GeneID	80328
NCBI Accession #	NP_079493
UniProt Primary Accession #	Q9BZM5
UniProt Secondary Accession #	Q5VUN4
UniProt Related Accession #	Q9BZM5
GenBank Nucleotide #	NM_025217.3
NCBI Official Full Name	UL16-binding protein 2 preproprotein
NCBI Official Synonym Full Names	UL16 binding protein 2
NCBI Official Symbol	ULBP2
NCBI Official Synonym Symbols	N2DL2; RAET1H; NKG2DL2; ALCAN-alpha
UniProt Protein Name	UL16-binding protein 2
UniProt Synonym Protein Names	ALCAN-alpha; NKG2D ligand 2; N2DL-2; NKG2DL2; Retinoic acid early transcript 1H
Protein Family	NKG2D ligand
UniProt Gene Name	ULBP2
UniProt Synonym Gene Names	N2DL2; RAET1H; N2DL-2; NKG2DL2
NCBI Protein Information	UL16-binding protein 2; NKG2D ligand 2
NCBI Summary for uLBP2	This gene encodes a major histocompatibility complex (MHC) class I-related molecule that binds to the NKG2D receptor on natural killer (NK) cells to trigger release of multiple cytokines and chemokines that in turn contribute to the recruitment and activation of NK cells. The encoded protein undergoes further processing to generate the mature protein that is either anchored to membrane via a glycosylphosphatidylinositol moiety, or secreted. Many malignant cells secrete the encoded protein to evade immunosurveillance by NK cells. This gene is located in a cluster of multiple MHC class I-related genes on chromosome 6. [provided by RefSeq, Jul 2015]
UniProt Comments for uLBP2	Binds and activates the KLRK1/NKG2D receptor, mediating natural killer cell cytotoxicity.
Research Articles on uLBP2	**1.** High ULBP2 expression is associated with lymphoma.

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