ULBP1 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	ULBP1, Polyclonal Antibody
Full Product Name	ULBP1 Antibody
Product Gene Name	anti-ULBP1 antibody
Product Synonym Names	Alcan beta; ALCAN-beta; N2DL-1; N2DL1; N2DL1_HUMAN; NKG2D ligand 1; NKG2D ligand 1 precursor; NKG2DL1; RAET1I; Retinoic acid early transcript 1I; UL16; UL16 binding protein 1; UL16-binding protein 1; ULBP1
Clonality	Polyclonal
Isotype	Rabbit IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Liquid. Rabbit IgG in phosphate buffered saline, pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin (Thermo Fisher Scientific).
Concentration	1mg/ml (lot specific)
Specificity	ULBP1 Antibody detects endogenous levels of ULBP1.
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.
Antibody/Peptide Pairs	ULBP1 peptide (MBS9632466) is used for blocking the activity of ULBP1 antibody (MBS9630083)
Molecular Weight	27,997 Da
OMIM	AF304377 mRNA
3D Structure	ModBase 3D Structure for Q9BZM6
Supply Chain Verification	Manufactured in a lab with traceable raw materials manufactured on site. Coordinated product portfolio of antibodies, pairs, conjugates, recombinant proteins, and immunoassay materials available, please inquire.
Immunogen	A synthesized peptide derived from human ULBP1.
Conjugation	Unconjugated
Similarity	Belongs to the MHC class I family.
Subunit Structure	Interacts with KLRK1/NKG2D. Does not bind to beta2-microglobulin.(Microbial infection) In CMV-infected cells, interacts with the viral glycoprotein UL16; this interaction causes ULBP1 retention in the endoplasmic reticulum and cis-Golgi and prevents binding to and activation of KLRK1/NKG2D, providing CMV with an immune evasion mechanism.
Tissue Specificity	Expressed in T-cells, B-cells, erythroleukemia cell lines and in a wide range of tissues including heart, brain, lung, liver, testis, lymph node, thymus, tonsil and bone marrow. Also found in fetal heart, brain, lung and liver.
Function	Binds and activates the KLRK1/NKG2D receptor, mediating natural killer cell cytotoxicity.
Note	In CMV-infected fibroblasts, detected in the endoplasmic reticulum/cis-Golgi.
Product Categories/Family for anti-ULBP1 antibody	Cell membrane; Lipid-anchor; Endoplasmic reticulum; Primary
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.

Applications Tested/Suitable for anti-ULBP1 antibody	ELISA (EIA)(peptide)
Application Notes for anti-ULBP1 antibody	ELISA(peptide): 1:20000-1:40000
Related Product Information for anti-ULBP1 antibody	MBS9630083 is an antibody targeting ULBP1. Also known as ULBP1 Antibody. Reactive in Human. Host: Rabbit.
Other Notes	Small volumes of anti-ULBP1 antibody 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.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for ULBP1. It may not necessarily be applicable to this product.

NCBI GI #	952556270
NCBI GeneID	80329
NCBI Accession #	NP_001304018.1
UniProt Primary Accession #	Q9BZM6
UniProt Secondary Accession #	Q5VY81; Q8IZW3; Q8IZX6
UniProt Related Accession #	Q9BZM6
GenBank Nucleotide #	NM_001317089.1
NCBI Official Full Name	NKG2D ligand 1 isoform 2
NCBI Official Synonym Full Names	UL16 binding protein 1
NCBI Official Symbol	ULBP1
NCBI Official Synonym Symbols	N2DL-1; RAET1I; NKG2DL1
UniProt Protein Name	NKG2D ligand 1
UniProt Synonym Protein Names	ALCAN-beta; Retinoic acid early transcript 1I; UL16-binding protein 1
Protein Family	NKG2D ligand
UniProt Gene Name	ULBP1
UniProt Synonym Gene Names	N2DL1; RAET1I; N2DL-1; NKG2DL1
NCBI Protein Information	NKG2D ligand 1
NCBI Summary for ULBP1	The protein encoded by this gene is a ligand of natural killer group 2, member D (NKG2D), an immune system-activating receptor on NK cells and T-cells. Binding of the encoded ligand to NKG2D leads to activation of several signal transduction pathways, including those of JAK2, STAT5, ERK and PI3K kinase/Akt. Also, in cytomegalovirus-infected cells, this ligand binds the UL16 glycoprotein and is prevented from activating the immune system. Three transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Nov 2015]

UniProt Comments for ULBP1	ULBP1: Ligand for the NKG2D receptor, together with at least ULBP2 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 ULBP1 to be retained in the ER and cis- Golgi apparatus so that it does not reach the cell surface. Belongs to the MHC class I family. Protein type: Apoptosis; Cell surface; Membrane protein, GPI anchor Chromosomal Location of Human Ortholog: 6q25.1 Cellular Component: anchored to plasma membrane; plasma membrane Molecular Function: antigen binding; natural killer cell lectin-like receptor binding Biological Process: antigen processing and presentation; natural killer cell activation; natural killer cell mediated cytotoxicity; regulation of immune response
Research Articles on ULBP1	**1.** ATF4 drives ULBP1 gene expression in cancer cell lines, while the RNA-binding protein RBM4 supports ULBP1 expression by suppressing a novel alternatively spliced isoform of ULBP1 mRNA.
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
Disclaimer	While every efforts were made to ensure the accuracy of the information provided in this datasheet, MyBioSource will not be liable for any omissions or errors contained herein. MyBioSource reserves the right to make changes to this datasheet at any time without prior notice. It is the responsibility of the customer to report product performance issues to MyBioSource within 30 days of receipt of the product. Please visit our Terms & Conditions page for more information.
Product Note	Select online data sheet information is drawn from bioinformatics databases, occasionally resulting in ambiguous or non-relevant product information. It is the responsibility of the customer to review, verify, and evaluate the information to make sure it matches their requirements before purchasing the kit. Our ELISA Kit assays are dynamic research tools and sometimes they may be updated and improved. If the format of this assay is important to you then please request the current manual or contact our technical support team with a presales inquiry before placing an order. We will confirm the current details of the assay. We cannot guarantee the sample manual posted online is the most current manual, it is intended to serve as an example only. Please refer to the instructions For Use provided with the assay kit for precise details.

For Research Use Only. Not for use in diagnostic or therapeutic procedures.

MyBioSource | Tel: +1.858.633.0165 | Fax: +1.858.633.0166 | mybiosource.com/contact-us
Online datasheet: https://www.mybiosource.com/polyclonal-human-antibody/ulbp1/9630083