abcam

ab256515

Anti-ULBP1 antibody [EPR22088-211] - BSA and Azide free

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EPR22088-211
Purification technique	Affinity purification Protein A
Concentration	0.998 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Not recommended

Species	Human
Dilution info	-

Notes	-

Flow Cyt

Tested

Species	Human
Dilution info	-
Notes	-

WB

Not recommended

Species	Human
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Human
Dilution info	-
Notes	-

ICC/IF

Not recommended

Species	Human
Dilution info	-
Notes	-

Target data

See full target information ULBP1

Function	Binds and activates the KLRK1/NKG2D receptor, mediating natural killer cell cytotoxicity.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

ab256515 is the carrier-free version of ab224711.

Patented technology

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?

This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

Conjugation ready

Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with 1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

Compatibility

This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	ULBP1 also known as UL16-binding protein 1 is a member of the MHC class I-related molecules. It weighs approximately 28 kDa. ULBP1 acts mechanically as a ligand for the NKG2D receptor part of the activating receptor on natural killer (NK) cells and certain T cells. It is primarily expressed on the surface of various cells including epithelial and some tumor cells. Its expression can be induced by cellular stress or infection.
Biological function summary	This protein plays a critical role in immune surveillance and response to malignancies and infections. ULBP1 does not form a complex on its own but it works closely with other NKG2D ligands contributing to the immune system's ability to recognize and eliminate abnormal cells. Its presence can enhance immune cell-mediated cytotoxicity indicating its role in immune defense.
Pathways	The protein takes an active part in the immune system activation interacting notably within the NK cell-mediated cytotoxicity pathway. It functions alongside other NKG2D ligands like MICA/MICB to modulate the activity of NK cells and T cells. This connection to the NKG2D pathway ensures a critical interface between innate and adaptive immunity reinforcing defense against infected or tumor cells.
Associated diseases and disorders	Researchers have noted associations between ULBP1 and cancer progression or immune evasion. Its upregulation on tumor cells can lead to tumor clearance; however some cancers may shed ULBP1 to escape immune detection. In autoimmune diseases such as rheumatoid arthritis altered expression of ULBP1 and its interaction with NKG2D can potentially exacerbate inflammation. These interactions emphasize the balance that ULBP1 maintains in managing immune responses and its implications in pathology.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

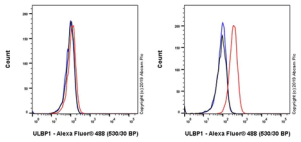
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

2 product images

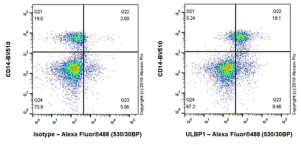


Flow Cytometry - Anti-ULBP1 antibody [EPR22088-211] - BSA and Azide free (ab256515)

ULBP1 Flow Cytometry staining using rabbit Anti-ULBP1 antibody

Flow cytometric analysis of HaCaT (Human skin keratinocyte, Left) / MOLT-4 (Human lymphoblastic leukemia T lymphoblast, Right) cells labelling ULBP1 with ab224711 at 1/60 dilution (Red) compared with a Rabbit monoclonal IgG (ab172730, Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) at 1/2000 dilution was used as the secondary antibody.
Negative control: HaCaT. (PMID: 22316211) Gated on viable cells.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab224711).



Flow Cytometry - Anti-ULBP1 antibody [EPR22088-211] - BSA and Azide free (ab256515)

ULBP1 Flow Cytometry staining using rabbit Anti-ULBP1 antibody

Flow cytometric analysis of Human peripheral blood mononuclear cells (PBMC) labelling ULBP1 with ab224711 at 1/60 dilution (Right) compared with a Rabbit monoclonal IgG (ab172730, Left) isotype control. Goat anti rabbit IgG (Alexa Fluor® 488, ab150097) at 1/5000 dilution was used as the secondary antibody. Cells were stained with rabbit IgG (Left) or ab224711 (Right). Then stained with anti-CD14 conjugated to BV510. Gated on viable cells.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab224711).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.