abcam

ab280087

Anti-ULBP3 antibody [4A10]

Recombinant

Key facts

Isotype	IgG2a
Host species	Mouse
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Clone number	4A10
Purification technique	Affinity purification Protein A
Concentration	0.897 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	1/100
Notes	-

Not recommended

Species	Recombinant fragment - Human, Mouse, Rat
Dilution info	-
Notes	-

Dot

Tested

Species	Recombinant fragment - Human
Dilution info	1/1000
Notes	-

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

WB

Not recommended

Species	Mouse, Rat, Human, Recombinant fragment - Human
Dilution info	-
Notes	-

Target data

See full target information ULBP3

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

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

Want a custom formulation?
This antibody clone is manufactured by Abcam. If you require a custom buffer formulation or conjugation for your experiments, please contact orders@abcam.com

Supplementary info

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

Activity summary	ULBP3 also known as UL16 binding protein 3 plays a significant role in immune surveillance. The protein is a member of the NKG2D ligand family and has a mass of approximately 30 kDa. ULBP3 is expressed on the cell surface of many human tissues predominantly in stressed transformed or infected cells where it becomes more prominent. The expression of ULBP3 signals to immune cells especially natural killer (NK) cells and some subsets of T-cells acting as an essential point of recognition and interaction.
Biological function summary	ULBP3 interacts with the activating receptor NKG2D to initiate immune responses against tumor cells or pathogen-infected cells. The binding of ULBP3 to NKG2D forms a part of the recognition process leading to the activation of NK cells and cytotoxic T cells enhancing their ability to destroy target cells. ULBP3 operates independently and not as part of a larger ligand complex making its interactions directly important for regulating immune function across different environments and conditions aiding in the maintenance of cellular homeostasis.

Pathways	ULBP3 participates integrally in immune signaling pathways like the NKG2D receptor-mediated pathway. Within this pathway its role in signaling enhances NK cell cytotoxicity and cytokine production. ULBP3 is related to other NKG2D ligands like MICA MICB and other ULBP molecules through this immune recognition pathway collectively contributing to immune defense mechanisms. These pathways form a critical element of the broader immune surveillance mechanism in the human body.
Associated diseases and disorders	ULBP3 has associations with various cancers and infectious diseases. Overexpression of ULBP3 has been observed in certain types of cancers such as lymphoma where it promotes recognition by the NK cells. Another area of interest is its role in viral infections where pathogens may modulate ULBP3 expression to evade the immune system. ULBP3's interaction with proteins like NKG2D is vital in modulating immune responses during these diseases highlighting its potential both as a target for therapeutic intervention and a biomarker for disease progression.

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

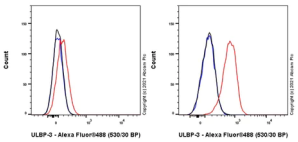
We do not recommend this combination. It is not covered by our product promise.

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.

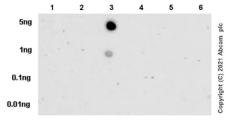
2 product images



Flow Cytometry - Anti-ULBP3 antibody [4A10] (ab280087)

ULBP3 Flow Cytometry staining using mouse Anti-ULBP3 antibody

Flow cytometric analysis of MCF7 (Human breast adenocarcinoma epithelial cell, Left)/ PC-3(human prostate adenocarcinoma epithelial cell, Right) cells labelling ULBP3 with ab280087 at 1/50 dilution (1ug)/ red compared with a Mouse monoclonal IgG (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). Goat anti mouse IgG (Alexa Fluor® 488, ab150113) at 1/2000 dilution was used as the secondary antibody. Negative control: MCF7 (PMID: 29980239) Gated on viable cells.



Dot Blot - Anti-ULBP3 antibody [4A10] (ab280087)

ULBP3 Dot Blot staining using mouse Anti-ULBP3 antibody

Dot blot analysis of ULBP3 using ab280087 at 1/1000 (0.897 µg/ml) followed by a Goat Anti-Mouse IgG, (H+L), Peroxidase conjugated secondary at 1/5000 dilution.
Lane 1: His-tagged human ULBP1 recombinant protein (aa 29-216)
Lane 2: FC-tagged human ULBP2 recombinant protein (aa 26-217)
Lane 3: FC-tagged human ULBP3 recombinant protein (aa 26/32-216)
Lane 4: His-tagged human ULBP5 recombinant protein (aa 29-210)
Lane 5: His-tagged human ULBP6 recombinant protein (aa 26-218)
Lane 6: BSA

Blocking and diluting buffer and concentration: 5% NFDM/TBST

Exposure time : 3 minutes

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