abcam

ab313389

Anti-Klra8 antibody [EPR28281-49] - BSA and Azide free

Recombinant | RabMAb | Advanced Validation

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	EPR28281-49
Purification technique	Affinity purification Protein A
Concentration	1.011 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Mouse
Dilution info	-

Notes	-

Not recommended

Species	Human, Rat
Dilution info	-
Notes	-

mIHC

Tested

Species	Mouse
Dilution info	-
Notes	-

Not recommended

Species	Human, Rat
Dilution info	-
Notes	-

Flow Cyt

Tested

Species	Mouse
Dilution info	-
Notes	-

Not recommended

Species	Human, Rat
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Mouse
Dilution info	-
Notes	-

Not recommended

Species	Human, Rat
Dilution info	-
Notes	-

WB

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

IP

Not recommended

Species	Mouse, Human, Rat
Dilution info	-
Notes	-

Target data

See full target information Klra8

Function Receptor on natural killer (NK) cells for class I MHC.

Storage

Shipped at conditions Blue Ice

Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C

Notes

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	Klra8 also known as Ly49H is a C-type lectin-like receptor found primarily on the surface of natural killer (NK) cells. It plays a significant role in immune surveillance against viral infections. The mass of Klra8 in its protein form is approximately 44 kDa. Expression of Klra8 is mainly in NK cells although some expression can also be observed in other immune cells under specific conditions.
Biological function summary	Natural killer cells utilize Klra8 to detect and destroy infected or transformed host cells. Klra8 plays an important role in recognizing ligands expressed by pathogens specifically certain strains of the mouse cytomegalovirus (MCMV). It is not a part of a larger protein complex. This receptor directly contributes to the cell-mediated

	cytotoxic response by NK cells facilitating the rapid elimination of threats to the host organism.
Pathways	Klra8 operates within the immune response pathways critical for defense against viral infections. It interacts closely with components of innate immune signaling. Related proteins include DAP12 an adaptor protein that transmits activation signals from Klra8 leading to NK cell activation and subsequent target cell lysis. This pathway represents an important line of defense in the innate immune system.
Associated diseases and disorders	Klra8's role is particularly noted in the context of viral infections such as those caused by cytomegalovirus. Deficiencies or alterations in Klra8 expression have implications in viral susceptibility and immune regulation disorders. The receptor's connection to proteins such as DAP12 links it to other immune-mediated conditions where disruptions in NK cell function may result in increased vulnerability to viral pathogens or affect immune homeostasis.

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

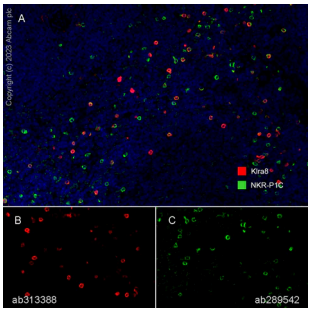
We do not recommend this combination. It is not covered by our product promise.

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.

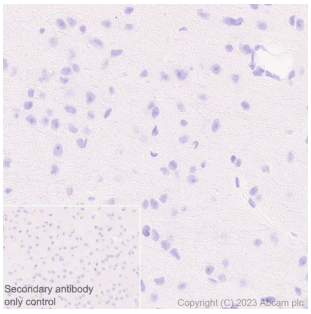
6 product images



Multiplex immunohistochemistry - Anti-Klra8 antibody [EPR28281-49] - BSA and Azide free (ab313389)

Klra8 Multiplex immunohistochemistry staining of Mouse spleen using rabbit Anti-Klra8 antibody

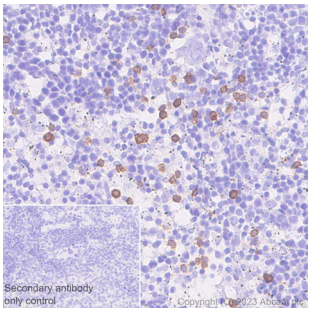
This data was produced using ab309363, the same clone but in a different formulation. Multiplex immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Mouse spleen tissue staining Klra8 with ab313388 at a 1/2000 dilution (0.253 µg/ml), ab289542 anti-NKR-P1C used at 1/100 dilution (5.18 µg/ml). Panel A: merged staining of anti-NKR-P1C (green; Opal™520) and anti-Klra8 (red; Opal™570) on mouse spleen. Panel B: anti-Klra8 stained on NK cell subsets. Panel C: anti-NKR-P1C stained on NK cell subsets. The section was incubated in two rounds of staining: in the order of ab289542 and ab313388 for 30 mins at room temperature. Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins Each round was followed by a separate fluorescent tyramide signal amplification system. The immunostaining was performed on a Leica Biosystems BOND® RX instrument with an Opal™ 4-color kit. Image acquisition was performed with Leica SP8 confocal microscope.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Klra8 antibody [EPR28281-49] - BSA and Azide free (ab313389)

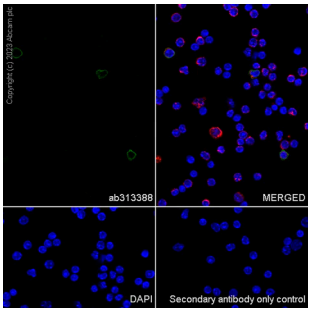
Klra8 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Mouse cerebrum using rabbit Anti-Klra8 antibody

This data was developed using ab313388, the same antibody clone in a different buffer formulation. Immunohistochemical analysis of paraffin-embedded mouse cerebrum tissue labeling Klra8 with ab313388 at 1/2000 (0.253 ug/ml) followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Negative control: no staining on mouse cerebrum. The section was incubated with ab313388 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin. Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins.



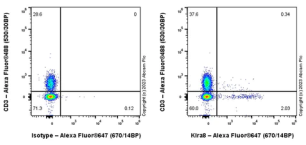
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Klra8 antibody [EPR28281-49] - BSA and Azide free (ab313389)

This data was developed using ab313388, the same antibody clone in a different buffer formulation. Immunohistochemical analysis of paraffin-embedded mouse spleen tissue labeling Klra8 with ab313388 at 1/2000 (0.253 ug/ml) followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Positive staining on mouse spleen (PMID: 18453597; PMID: 10770801). The section was incubated with ab313388 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin. Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins.



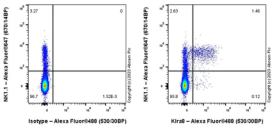
Immunocytochemistry/ Immunofluorescence - Anti-Klra8 antibody [EPR28281-49] - BSA and Azide free (ab313389)

This data was developed using ab313388, the same antibody clone in a different buffer formulation. Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized mouse splenocytes cells labelling Klra8 with ab313388 at 1/100 (5.06 ug/ml) dilution, followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 2 ug/ml dilution (Green). Confocal image showing membranous staining in subsets of mouse splenocytes. Image was taken with a confocal microscope(Leica-Microsystems, TCS SP8). ab195889 Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 2.5ug/ml dilution (Red). The Nuclear counterstain was DAPI (Blue). Secondary antibody only control: Secondary antibody is ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 2 ug/ml dilution.



Flow Cytometry - Anti-Klra8 antibody [EPR28281-49] - BSA and Azide free (ab313389)

This data was developed using ab313388, the same antibody clone in a different buffer formulation. Flow cytometric analysis of Mouse splenocytes cells labelling Klra8 with ab313388 at 1/500 dilution (0.1 ug)/ Right compared with a Rabbit IgG monoclonal [EPR25A] - Isotype Control (Alexa Fluor® 647) (ab199093) / Left isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/5000 dilution was used as the secondary antibody. Cells co-stained with CD3 conjugated to Alexa Fluor®488. Gated on viable cells.



Flow Cytometry - Anti-Klra8 antibody [EPR28281-49] - BSA and Azide free (ab313389)

This data was developed using ab313388, the same antibody clone in a different buffer formulation. Flow cytometric analysis of Mouse splenocytes cells labelling Klra8 with ab313388 at 1/500 dilution (0.1 ug)/ Right compared with a Rabbit monoclonal IgG (ab172730) / Left isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/5000 dilution was used as the secondary antibody. Cells co-stained with NK1.1 conjugated to Alexa Fluor®647. Gated on viable cells.

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