abcam

ab248248

Anti-AIPL1 antibody [EPR7711] - 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	EPR7711
Purification technique	Affinity purification
Dissociation constant	2.25 x 10^{-11} M
Concentration	1.029 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Tested

Species	Human
Dilution info	-

Notes	-

IHC-P

Not recommended

Species	Human
Dilution info	-
Notes	-

ICC/IF

Not recommended

Species	Human
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

Target data

See full target information AIPL1

Function	May be important in protein trafficking and/or protein folding and stabilization.

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

ab248248 is the carrier-free version of ab128960.

Species reactivity

Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.

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	AIPL1 also known as aryl hydrocarbon receptor-interacting protein-like 1 is a protein that plays an important mechanical role in the cellular environment. It has a molecular mass of approximately 42 kDa. AIPL1 is expressed mainly in the retina further appearing in photoreceptor cells where its function becomes important for proper cell operation. This protein interacts with other molecular structures directly affecting processes essential to cellular function.

Biological function summary	AIPL1 assists in maintaining the stability and proper folding of photoreceptor PDE6 a cyclic GMP phosphodiesterase an important component of the phototransduction complex. It acts as a chaperone ensuring that PDE6 which is critical for visual processes stays correctly assembled and functional. Its role in this complex highlights its involvement in the health of photoreceptor cells and indirectly supports the conversion of light into neural signals within the eye.
Pathways	AIPL1 participates significantly within the phototransduction pathway. This is a vital pathway required for vision where it directly influences the regulation of PDE6 activity. AIPL1's association with PDE6 links it to further elements like the guanylate cyclase pathway important for replenishing cGMP levels post-phototransduction. Interactions with proteins such as chaperonin-containing TCP-1 (CCT) highlight its role in the folding and proper functioning of phototransduction components.
Associated diseases and disorders	Mutations in AIPL1 are associated with Leber congenital amaurosis (LCA) a severe inherited retinal dystrophy that leads to blindness or severe vision impairment from a young age. The loss of function or malfunction of AIPL1 affects PDE6 leading to the buildup of misfolded proteins which impairs photoreceptor cell survival and function. Additionally study of similar AIPL1 mutations sheds light on a subset of retinitis pigmentosa linking abnormalities within this protein to progressive vision disorders.

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

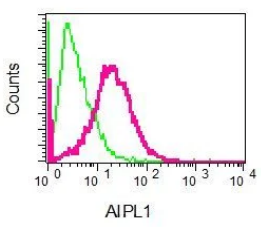
We do not recommend this combination. It is not covered by our product promise.

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.

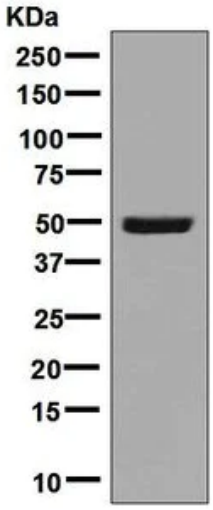
3 product images



Flow Cytometry (Intracellular) - Anti-AIPL1 antibody [EPR7711] - BSA and Azide free (ab248248)

AIPL1 Flow Cytometry (Intracellular) staining using rabbit Anti-AIPL1 antibody

This data was developed using ab128960, the same antibody clone in a different buffer formulation.
ab128960, at 1/10 dilution staining AIPL1 (red) in permeabilized Y79 cells, compared with a negative rabbit IgG (green) by intracellular flow cytometry.



Western blot - Anti-AIPL1 antibody [EPR7711] - BSA and Azide free (ab248248)

This data was developed using ab128960, the same antibody clone in a different buffer formulation.
All lanes:
Western blot - Anti-AIPL1 antibody [EPR7711] (ab128960) at 1/10000 dilution

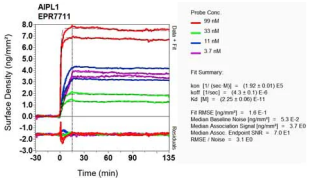
All lanes:
Y79 cell lysate at 10 µg

Secondary

All lanes:
HRP labelled goat anti-rabbit at 1/2000 dilution

Predicted band size: 44 kDa

Observed band size: 44 kDa



OI-RD Scanning - Anti-AIPL1 antibody [EPR7711] - BSA and Azide free (ab248248)

We have systematically measured KD (the equilibrium dissociation constant between the antibody and its antigen), of more than 840 recombinant antibodies to assess not only their individual KD values but also to see the average affinity of antibody. Based on the comparison with published literature values for mouse monoclonal antibodies, Recombinant antibodies appear to be on average 1-2 order of magnitude higher affinity.

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