abcam

ab316973

Anti-Pseudomonas Outer membrane porin F antibody [EPR28629-91]

Recombinant | RabMAb | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
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
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR28629-91
Purification technique	Affinity purification Protein A
Concentration	0.539 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Tested

Species	Transfected cell lysate - Pseudomonas aeruginosa
Dilution info	1/1000
Notes	-

Predicted

Species	Pseudomonas aeruginosa
Dilution info	-
Notes	-

Not recommended

Species	Transfected cell line - Pseudomonas aeruginosa, Recombinant full length protein - Pseudomonas aeruginosa
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Transfected cell line - Pseudomonas aeruginosa
Dilution info	1/2000
Notes	-

Predicted

Species	Pseudomonas aeruginosa
Dilution info	-
Notes	-

Not recommended

Species	Transfected cell lysate - Pseudomonas aeruginosa, Recombinant full length protein - Pseudomonas aeruginosa
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Transfected cell line - Pseudomonas aeruginosa
Dilution info	1/5000
Notes	-

Predicted

Species	Pseudomonas aeruginosa
Dilution info	-
Notes	-

Not recommended

Species	Transfected cell lysate - Pseudomonas aeruginosa, Recombinant full length protein - Pseudomonas aeruginosa
Dilution info	-
Notes	-

IP

Tested

Species	Transfected cell lysate - Pseudomonas aeruginosa
Dilution info	1/30
Notes	-

Predicted

Species	Pseudomonas aeruginosa
Dilution info	-
Notes	-

Not recommended

Species	Transfected cell line - Pseudomonas aeruginosa, Recombinant full length protein - Pseudomonas aeruginosa
Dilution info	-

Notes	-

I-ELISA

Tested

Species	Recombinant full length protein - Pseudomonas aeruginosa
Dilution info	1000 ng/mL
Notes	-

Predicted

Species	Pseudomonas aeruginosa
Dilution info	-
Notes	-

Not recommended

Species	Transfected cell lysate - Pseudomonas aeruginosa, Transfected cell line - Pseudomonas aeruginosa
Dilution info	-
Notes	-

IHC-P

Tested

Species	Transfected cell line - Pseudomonas aeruginosa
Dilution info	1/5000
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Predicted

Species	Pseudomonas aeruginosa
Dilution info	-
Notes	-

Not recommended

Species	Transfected cell lysate - Pseudomonas aeruginosa, Recombinant full length protein - Pseudomonas aeruginosa
Dilution info	-
Notes	-

Target data

See full target information oprF

Function	Has porin activity, forming small water-filled channels. Also has a structural role in determining cell shape and ability to grow in low-osmolarity medium.

Storage

Shipped at conditions	Conditional Ambient
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

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.

Supplementary info

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

Activity summary	Pseudomonas Outer Membrane Porin F (OprF) is a protein in Pseudomonas aeruginosa with a molecular mass of approximately 38 kDa. It forms channels across the bacterial outer membrane and allows small hydrophilic molecules to pass functioning as a non-specific diffusion channel. OprF is essential for maintaining the structural integrity of the outer membrane and it is majorly expressed in the outer membrane of Pseudomonas species.
Biological function summary	The Pseudomonas Outer Membrane Porin F plays an important role in nutrient uptake and waste removal. As a part of the outer membrane complex OprF works closely with other porins facilitating the transport of ions and small molecules. It contributes to the permeability of the bacterial membrane which is critical for the bacteria's adaptability and survival in diverse environments.
Pathways	OprF is significant in the general porin-mediated transport pathways that facilitate the exchange of essential nutrients and ions. OprF interacts with other porin proteins forming part of a porous barrier that aligns with the bacteria's need for environmental adaptation. Its role is critical in the context of biofilm formation pathways and antibiotic resistance mechanisms often partnering with OprD porin in these processes.
Associated diseases and disorders	OprF is linked with chronic infections particularly in cystic fibrosis patients where Pseudomonas aeruginosa displays increased pathogenicity. OprF interacts with proteins like AlgC promoting biofilm formation that contributes to the bacterium's resistance to treatment. Its involvement in multidrug resistance also aligns with its role in chronic lung infections complicating the treatment strategies for affected individuals.

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

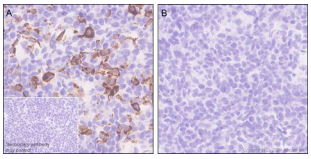
We do not recommend this combination. It is not covered by our product promise.

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.

9 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Pseudomonas Outer membrane porin F antibody [EPR28629-91] (ab316973)

Pseudomonas Outer membrane porin F Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Pseudomonas Outer membrane porin F antibody

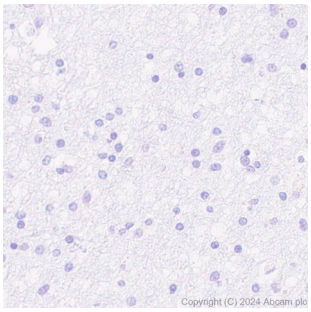
Immunohistochemical analysis of paraffin-embedded (A) HEK-293T (human embryonic kidney epithelial cell) transfected with a Pseudomonas Outer membrane porin F expression vector containing a myc-His-tag®. (B) HEK-293T transfected with an empty vector containing a myc-His-tag®. tissue labeling Pseudomonas Outer membrane porin F with ab316973 at 1/5000 (0.098 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Positive staining in (A) HEK-293T (human embryonic kidney epithelial cell) transfected with a Pseudomonas Outer membrane porin F expression vector containing a myc-His-tag®, no staining in (B) HEK-293T transfected with an empty vector containing a myc-His-tag®.
The section was incubated with ab316973 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-Pseudomonas Outer membrane porin F antibody [EPR28629-91] (ab316973)

Pseudomonas Outer membrane porin F Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Human cerebrum using rabbit Anti-Pseudomonas Outer membrane porin F antibody

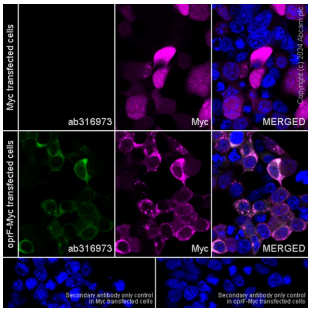
Immunohistochemical analysis of paraffin-embedded Human cerebrum tissue labeling Pseudomonas Outer membrane porin F with ab316973 at 1/5000 (0.098 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Negative control: No staining in human cerebrum.
The section was incubated with ab316973 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-Pseudomonas Outer membrane porin F antibody [EPR28629-91] (ab316973)

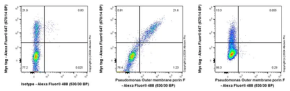
Pseudomonas Outer membrane porin F Immunocytochemistry/ Immunofluorescence staining of 293T cells transfected with the Pseudomonas outer membrane porin F vector containing a myc-His-tag® using rabbit Anti-Pseudomonas Outer membrane porin F antibody

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized 293T (human embryonic kidney epithelial cell) cells labelling Pseudomonas Outer membrane porin F with ab316973 at 1/2000 (0.244 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 cytoplasmic staining in 293T cells transfected with the Pseudomonas outer membrane porin F vector containing a myc-His-tag® (shown in green). The counterstain was observed in magenta. Nuclear DNA was labeled with DAPI (shown in blue).
Image was taken with a confocal microscope(Leica-Microsystems, TCS SP8).

ab223894 Anti-Myc tag mouse monoclonal antibody (Alexa Fluor® 594) was used to counterstain tubulin at 1/100 5ug/ml dilution (Magenta). 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.



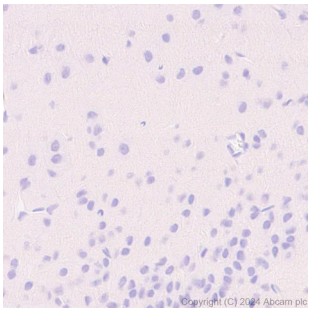
Flow Cytometry (Intracellular) - Anti-Pseudomonas Outer membrane porin F antibody [EPR28629-91] (ab316973)

Pseudomonas Outer membrane porin F Flow Cytometry (Intracellular) staining using rabbit Anti-Pseudomonas Outer membrane porin F antibody

Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized Isotype (Left) / 293T (human embryonic kidney epithelial cell) cells transfected with a Pseudomonas Outer membrane porin F expression vector containing a Myc tag (Middle) / 293T cells transfected with an empty expression vector containing a Myc tag (Right) cells labelling Pseudomonas Outer membrane porin F with ab316973 at 1/5000 dilution (0.01 ug)/Middle and Right compared with a Rabbit monoclonal IgG (ab172730) / Left isotype control.

Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/5000 dilution was used as the secondary antibody.

Cells were stained with anti-myc tag conjugated to Alexa Fluor®647.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Pseudomonas Outer membrane porin F antibody [EPR28629-91] (ab316973)

Pseudomonas Outer membrane porin F Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Rat cerebrum using rabbit Anti-Pseudomonas Outer membrane porin F antibody

Immunohistochemical analysis of paraffin-embedded Rat cerebrum tissue labeling Pseudomonas Outer membrane porin F with ab316973 at 1/5000 (0.098 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

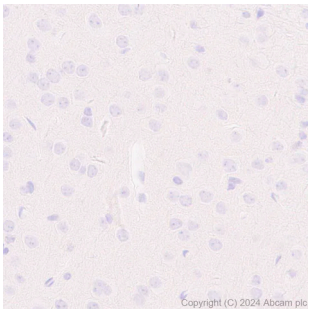
Negative control: No staining in rat cerebrum.
The section was incubated with ab316973 for 30 mins at room temperature.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument

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

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Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Pseudomonas Outer membrane porin F antibody [EPR28629-91] (ab316973)

Pseudomonas Outer membrane porin F Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Mouse cerebrum using rabbit Anti-Pseudomonas Outer membrane porin F antibody

Immunohistochemical analysis of paraffin-embedded Mouse cerebrum tissue labeling Pseudomonas Outer membrane porin F with ab316973 at 1/5000 (0.098 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

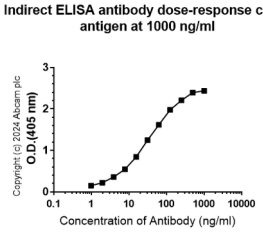
Negative control: No staining in mouse cerebrum.
The section was incubated with ab316973 for 30 mins at room temperature.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument

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

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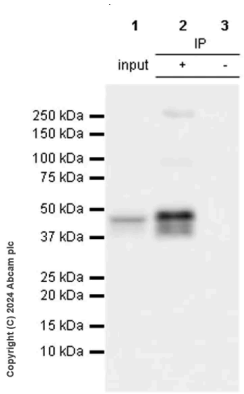


Indirect ELISA - Anti-Pseudomonas Outer membrane porin F antibody [EPR28629-91] (ab316973)

Indirect ELISA analysis of ab316973 at 1000-0 ng/ml. The Secondary antibody used was Alkaline Phosphatase-conjugated AffiniPure Goat Anti-Rabbit IgG (H+L) at 1:2500 dilution.

Antigen: Pseudomonas Outer membrane porin F.

Antigen concentration: 1000 ng/ml



Immunoprecipitation - Anti-Pseudomonas Outer membrane porin F antibody [EPR28629-91] (ab316973)

Pseudomonas Outer membrane porin F was immunoprecipitated from 0.35 mg 293T(human embryonic kidney epithelial cell) cells transfected with a Pseudomonas Outer membrane porin F expression vector containing a myc-His-tag®, whole cell lysate with ab316973 at 1/30 dilution (2ug in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab316973 at 1/1000 dilution. VeriBlot for IP secondary antibody(HRP)(ab131366) was used at 1/5000 dilution.

Lane 1: 293T(human embryonic kidney epithelial cell) cells transfected with a Pseudomonas Outer membrane porin F expression vector containing a myc-His-tag®, whole cell lysate
Lane 2: ab316973 IP in 293T(human embryonic kidney epithelial cell) cells transfected with a Pseudomonas Outer membrane porin F expression vector containing a myc-His-tag®, whole cell lysate
Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab316973 in 293T cells transfected with a Pseudomonas Outer membrane porin F expression vector containing a myc-His-tag®, whole cell lysate

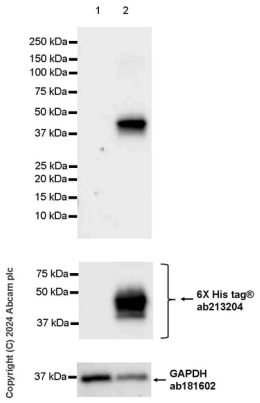
All lanes:
Immunoprecipitation - Anti-Pseudomonas Outer membrane porin F antibody [EPR28629-91] (ab316973) at 1/30 dilution

All lanes:
293T(human embryonic kidney epithelial cell) cells transfected with a Pseudomonas Outer membrane porin F expression vector containing a myc-His-tag®, whole cell lysate at 5 µg

Secondary

All lanes:
Immunoprecipitation - VeriBlot for IP Detection Reagent (HRP) (ab131366) at 1/5000 dilution

Exposure time: 10s



Western blot - Anti-Pseudomonas Outer membrane porin F antibody [EPR28629-91] (ab316973)

Pseudomonas Outer membrane porin F Western blot staining using rabbit Anti-Pseudomonas Outer membrane porin F antibody

In Western blot, Anti-GAPDH antibody [EPR16891] - Loading Control (ab181602) staining at 1/200000 dilution.

In Western blot, Anti-6X His tag® antibody [EPR20547] - ChIP Grade (ab213204) staining at 1/5000 dilution.

All lanes:
Western blot - Anti-Pseudomonas Outer membrane porin F antibody [EPR28629-91] (ab316973) at 1/1000 dilution

Lane 1:
293T (human embryonic kidney epithelial cell) cells transfected with an empty vector containing a myc-His-tag®, whole cell lysate at 20 µg

Lane 2:

293T transfected with a Pseudomonas Outer membrane porin F expression vector containing a myc-His-tag®, whole cell lysate at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Observed band size: 38 kDa, 36 kDa

Exposure time: 26s

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