abcam

ab290727

Anti-PICK1 antibody [EPR25155-48]

Recombinant | RabMAb | KO Validated | 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	EPR25155-48
Purification technique	Affinity purification Protein A
Concentration	0.51 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Tested

Species	Mouse
Dilution info	1/50
Notes	-

Not recommended

Species	Human, Rat
Dilution info	-
Notes	-

IP

Tested

Species	Human
Dilution info	1/30
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

WB

Tested

Species	Mouse
Dilution info	1/1000
Notes	-

Species	Human
Dilution info	1/1000
Notes	-

Not recommended

Species	Rat
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Mouse, Rat, Human
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Mouse
Dilution info	1/500
Notes	-

Not recommended

Species	Human, Rat
Dilution info	-
Notes	-

Target data

See full target information PICK1

Function

Probable adapter protein that bind to and organize the subcellular localization of a variety of membrane proteins containing some PDZ recognition sequence. Involved in the clustering of various receptors, possibly by acting at the receptor internalization level. Plays a role in synaptic plasticity by regulating the trafficking and internalization of AMPA receptors. May be regulated upon PRKCA activation. May regulate ASIC1/ASIC3 channel. Regulates actin polymerization by inhibiting the actin-nucleating activity of the Arp2/3 complex; the function is competitive with nucleation promoting factors and is linked to neuronal morphology regulation and AMPA receptor (AMPAR) endocytosis. Via interaction with the Arp2/3 complex involved in regulation of synaptic plasicity of excitatory synapses and required for spine shrinkage during long-term depression (LTD). Involved in regulation of astrocyte morphology, antagonistic to Arp2/3 complex activator WASL/N-WASP function.

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	PICK1 or Protein Interacting with C Kinase 1 is a protein that plays a significant role in cellular processes. With a molecular mass of approximately 47 kDa PICK1 is well known for its ability to bind to proteins through its PDZ domain. You can find PICK1 expressed highly in the brain but it is also present in other tissues like the pancreas and testes. This makes it an important target for understanding various cellular interactions and functions related to protein trafficking.
Biological function summary	PICK1 is known for its role in modulating the trafficking and synaptic targeting of AMPA receptors which are essential for synaptic plasticity and memory formation. It operates as part of a protein complex that influences the receptor's presence at the synaptic membrane. PICK1 binds with proteins like GluA2 subunit of AMPA receptors which allows it to regulate receptor internalization and surface expression impacting synaptic signaling and plasticity.

Pathways	PICK1 interacts within the glutamatergic signaling and insulin secretion pathways. In the glutamatergic signaling pathway it contributes to the regulation of synaptic strength by linking with other proteins such as protein kinase C (PKC) to facilitate synapse dynamics. In insulin secretion PICK1 partners with proteins like the insulin granule docking machinery to regulate insulin release in response to glucose.
Associated diseases and disorders	Research has linked PICK1 function with conditions like schizophrenia and diabetes. PICK1's regulatory influence on AMPA receptors involves interactions with proteins such as protein kinase C which researchers have associated with synaptic abnormalities seen in schizophrenia. Regarding diabetes PICK1's role in insulin secretion connects it to the disease through the regulation of proteins involved in insulin granule dynamics. Understanding these connections aids in developing potential therapeutic strategies for these 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

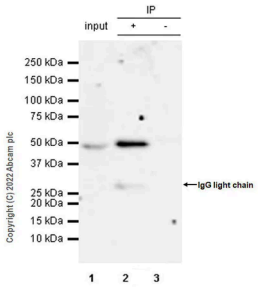
We do not recommend this combination. It is not covered by our product promise.

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.

8 product images



Immunoprecipitation - Anti-PICK1 antibody [EPR25155-48] (ab290727)

PICK1 was immunoprecipitated from 0.35 mg LNCaP (human prostate carcinoma epithelial cell) whole cell lysate 10 ug with ab290727 at 1/30 dilution (2ug in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab290727 at 1/1000 dilution. VeriBlot for IP secondary antibody(HRP)(ab131366) was used at 1/5000 dilution.
Lane 1: LNCaP (human prostate carcinoma epithelial cell) whole cell lysate 10 ug

Lane 2: ab290727 IP in LNCaP whole cell lysate

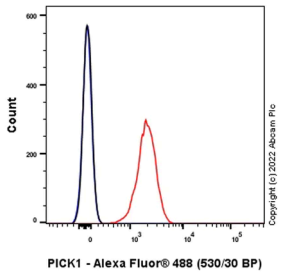
Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab290727 in LNCaP whole cell lysate

Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 3 minutes

All lanes:
Immunoprecipitation - Anti-PICK1 antibody [EPR25155-48] (ab290727)

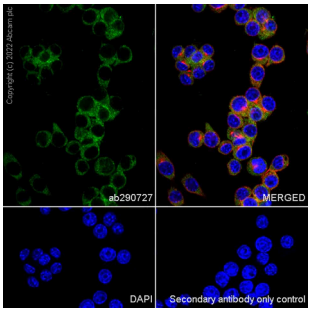
Predicted band size: 46 kDa



Flow Cytometry (Intracellular) - Anti-PICK1 antibody [EPR25155-48] (ab290727)

PICK1 Flow Cytometry (Intracellular) staining using rabbit Anti-PICK1 antibody

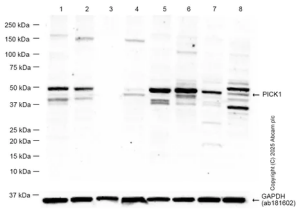
Intracellular flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized RAW 264.7 (Mouse Abelson murine leukemia virus-induced tumor macrophage) cells labelling PICK1 with ab290727 at 1/500 dilution (0.1ug) (Red) compared with a Rabbit monoclonal IgG (ab172730) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). A Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/2000 dilution was used as the secondary antibody.



Immunocytochemistry/ Immunofluorescence - Anti-PICK1 antibody [EPR25155-48] (ab290727)

PICK1 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-PICK1 antibody

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeilized RAW 264.7 (mouse abelson murine leukemia virus-induced tumor macrophage) cells lebelling PICK1 with ab290727 at 1/50 (10.2 ug/ml) dilution, followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 (2ug/mL) dilution (Green). Confocal image showing cytoplasmic staining in RAW 264.7 cell line is observed. 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 (2ug/mL) dilution.



Western blot - Anti-PICK1 antibody [EPR25155-48] (ab290727)

PICK1 Western blot staining using rabbit Anti-PICK1 antibody

In Western blot, Anti-GAPDH antibody [EPR16891] - Loading Control (ab181602) staining at 1/1000000 dilution.

Low expression tissue: lung and liver (PMID: 18032668)

All lanes:
Western blot - Anti-PICK1 antibody [EPR25155-48] (ab290727) at 1/1000 dilution

Lane 1:
Human pancreas tissue lysate at 20 µg

Lane 2:
Human testis tissue lysate at 20 µg

Lane 3:
Human lung tissue lysate at 20 µg

Lane 4:
Human liver tissue lysate at 20 µg

Lane 5:
Mouse pancreas tissue lysate at 20 µg

Lane 6:
Mouse testis tissue lysate at 20 µg

Lane 7:
Mouse lung tissue lysate at 20 µg

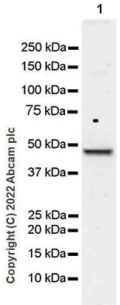
Lane 8:
Mouse liver tissue lysate at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Observed band size: 46 kDa

Exposure time: 100s



Western blot - Anti-PICK1 antibody [EPR25155-48] (ab290727)

PICK1 Western blot staining of HeLa (human cervix adenocarcinoma epithelial cell) whole cell lysate using rabbit Anti-PICK1 antibody

Blocking / Dilution buffer and concentration: 5% NFDM/TBST
The expression profile/ molecular weight observed is consistent with what has been described in the literature (PMID 10027300； PMID: 32336285).

All lanes:
Western blot - Anti-PICK1 antibody [EPR25155-48] (ab290727) at 1/1000 dilution

All lanes:
HeLa (human cervix adenocarcinoma epithelial cell) whole cell lysate at 20 µg

Secondary

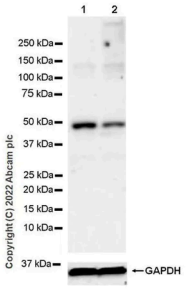
All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Predicted band size: 46 kDa

Observed band size: 46 kDa

Exposure time: 3min

Western blot - Anti-PICK1 antibody [EPR25155-48] (ab290727)



PICK1 Western blot staining using rabbit Anti-PICK1 antibody

Blocking / Dilution buffer and concentration: 5% NFDM/TBST
The expression profile/ molecular weight observed is consistent with what has been described in the literature (PMID 10027300； PMID: 32336285).

All lanes:
Western blot - Anti-PICK1 antibody [EPR25155-48] (ab290727) at 1/1000 dilution

Lane 1:
293T (human embryonic kidney epithelial cell) transfected with scrambled siRNA control, whole cell lysate at 20 µg

Lane 2:
293T transfected with siRNA specifically targeting PICK1, whole cell lysate at 20 µg

Secondary

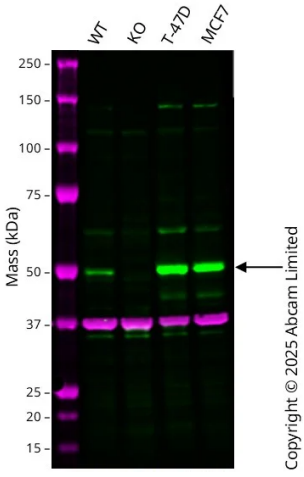
All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Predicted band size: 46 kDa

Observed band size: 46 kDa

Exposure time: 3min

Western blot - Anti-PICK1 antibody [EPR25155-48] (ab290727)



PICK1 Western blot staining using rabbit Anti-PICK1 antibody

Western blot: Rabbit Monoclonal[EPR25155-48] to PICK1 ab290727 staining at 1/1000 dilution, shown in green; Mouse anti GAPDH (ab8245) loading control staining at 1/20,000 dilution, shown in magenta. A band was observed at 47 kDa in Wild-type U-87 MG cell lysates with no signal observed at this size in PICK1 knockout U-87 MG cell line (ab326021). To generate this image, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in 5pc Milk in TBS-0.1 % Tween® 20 (TBS-T) before incubation with primary antibodies overnight at 4°C. Blots were washed four times in TBS-T, incubated with secondary antibodies for 1 h at room temperature, washed again four times then imaged. Secondary antibodies used were Goat anti-Rabbit 800CW & Goat anti-Mouse 680RD at 1/20,000 dilution.
All lanes:
Western blot - Anti-PICK1 antibody [EPR25155-48] (ab290727) at 1/1000 dilution

Lane 1:
Wild-type U-87 MG at 20 µg

Lane 2:
Western blot - Human PICK1 knockout U-87 MG cell line (ab326021) at 20 µg

Lane 3:
T-47D at 20 µg

Lane 4:
MCF7 at 20 µg

Secondary

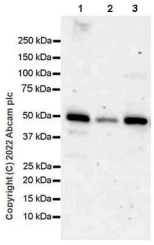
All lanes:
Goat anti-Rabbit 800CW & Goat anti-Mouse 680RD at 1/20000 dilution

Performed under reducing conditions.

Predicted band size: 47 kDa

Observed band size: 47 kDa

Western blot - Anti-PICK1 antibody [EPR25155-48] (ab290727)



PICK1 Western blot staining using rabbit Anti-PICK1 antibody

Blocking / Diluent buffer and concentration: 5% NFDM/TBST
The expression profile/ molecular weight observed is consistent with what has been described in the literature (PMID 10027300； PMID: 32336285).

All lanes:
Western blot - Anti-PICK1 antibody [EPR25155-48] (ab290727) at 1/1000 dilution

Lane 1:
C2C12 (mouse myoblasts myoblast) whole cell lysate at 20 µg

Lane 2:
NIH/3T3 (mouse embryonic fibroblast) whole cell lysate at 20 µg

Lane 3:
RAW264.7 (mouse Abelson murine leukemia virus-induced tumor macrophage) whole cell lysate at 20 µg

Secondary

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

Predicted band size: 46 kDa

Observed band size: 46 kDa

Exposure time: 3min

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