abcam

ab278497

Anti-ABP1 antibody [EPR24299-52]

Recombinant | RabMAb | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	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	EPR24299-52
Purification technique	Affinity purification Protein A
Concentration	0.495 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

IP

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	1/1000
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/50
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

IHC-P

Tested

Species	Human
Dilution info	1/2000
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Not recommended

Species	Mouse
Dilution info	-
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Species	Rat
Dilution info	-
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

IHC-Fr

Not recommended

Species	Rat, Mouse, Human
Dilution info	-
Notes	-

Target data

See full target information AOC1

Function	Catalyzes the oxidative deamination of primary amines to the corresponding aldehydes with the concomitant production of hydrogen peroxide and ammonia (PubMed:12072962, PubMed:19764817, PubMed:239684, PubMed:8144586). Its preferred substrates are the diamines histamine and 1-methylhistamine and it could therefore play a role in allergic and immune responses (PubMed:12072962). Has a broad specificity for diamines and can also act on cadaverine and putrescine, two products of amino acid catabolism (PubMed:12072962). It could also act on polyamines, like spermidine and spermine though less efficiently, and regulate various biological processes (PubMed:12072962, PubMed:239684).

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	ABP1 also known as Auxin Binding Protein 1 is a protein with a molecular mass of approximately 22 kDa. This protein primarily functions as an auxin receptor in plants mediating various cellular responses to the plant hormone auxin. ABP1 locates mainly in the endoplasmic reticulum and is present across various plant tissues. The protein has a significant affinity for auxin and triggers specific intracellular signaling cascades essential for growth and development processes.
Biological function summary	ABP1 plays an important role in controlling cell elongation and division and it works in tandem with other auxin transporters. The protein functions within a broader receptor complex interacting with other proteins to modify plant cell physiology. Its action facilitates cell wall modification which directly influences the plant's response to environmental and endogenous signals. Through these

	interactions ABP1 significantly contributes to regulating the plant's phototropic and gravitropic responses.
Pathways	The operation of ABP1 integrates into the auxin signaling pathway and is associated with the regulation of gene expression. It links to TIR1 an important F-box protein in the SCF complex involved in the auxin signal transduction pathway. Together ABP1 and TIR1 coordinate to modulate the stability of transcription factors affecting downstream gene expression necessary for plant growth and development.
Associated diseases and disorders	ABP1 itself mostly pertains to plant biology but its function offers insights into plant growth abnormalities. Disruptions in ABP1 function may result in disorders like auxin-insensitive phenotypes leading to defective root and shoot development. Additionally ABP1's interaction with PIN proteins responsible for auxin efflux creates potential for research into correcting growth defects in crops making it a critical focus in agricultural science.

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

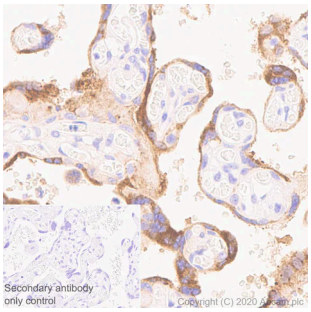
We do not recommend this combination. It is not covered by our product promise.

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

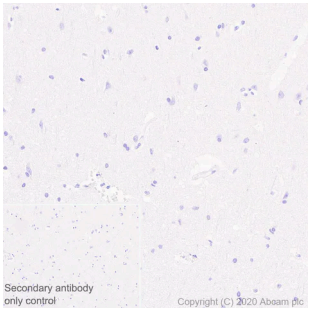


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ABP1 antibody [EPR24299-52] (ab278497)

ABP1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-ABP1 antibody

Immunohistochemical analysis of paraffin-embedded human placenta tissue labeling ABP1 with ab278497 at 1/2000 dilution (0.248 ug/ml) followed by a ready to use LeicaDS9800 (Bond® Polymer Refine Detection) was used. Positive staining on human placenta (PMID:12072962). The section was incubated with ab278497 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) was used.

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.

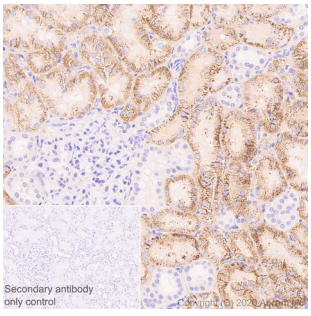


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ABP1 antibody [EPR24299-52] (ab278497)

ABP1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-ABP1 antibody

Immunohistochemical analysis of paraffin-embedded human cerebrum tissue labeling ABP1 with ab278497 at 1/2000 dilution (0.248 ug/ml) followed by a ready to use LeicaDS9800 (Bond® Polymer Refine Detection) was used. Negative control: No staining on human cerebrum (PMID:12072962). The section was incubated with ab278497 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) was used.

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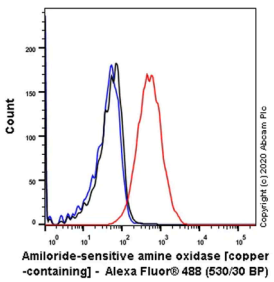


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ABP1 antibody [EPR24299-52] (ab278497)

ABP1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-ABP1 antibody

Immunohistochemical analysis of paraffin-embedded human kidney tissue labeling ABP1 with ab278497 at 1/2000 dilution (0.248 ug/ml) followed by a ready to use LeicaDS9800 (Bond® Polymer Refine Detection) was used. Positive staining on human kidney (PMID:12072962). The section was incubated with ab278497 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) was used.

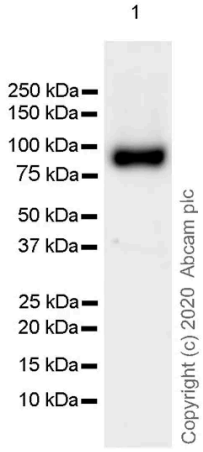
Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.



Flow Cytometry (Intracellular) - Anti-ABP1 antibody [EPR24299-52] (ab278497)

ABP1 Flow Cytometry (Intracellular) staining using rabbit Anti-ABP1 antibody

Intracellular flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized THP-1 (Human monocytic leukemia monocyte) cells labelling ABP1 with ab278497 at 1/50 dilution (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, ab150077) at 1/2000 dilution was used as the secondary antibody.



Western blot - Anti-ABP1 antibody [EPR24299-52] (ab278497)

ABP1 Western blot staining of THP-1 (human monocytic leukemia monocyte) whole cell lysate using rabbit Anti-ABP1 antibody

Blocking and diluting buffer and concentration: 5% NFDM/TBST
Sample is non-boiled as boiling may cause protein aggregates.

Exposure time: 37 seconds

All lanes:
Western blot - Anti-ABP1 antibody [EPR24299-52] (ab278497) at 1/1000 dilution

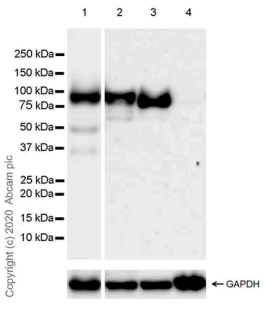
All lanes:
THP-1 (human monocytic leukemia monocyte) whole cell lysate at 20 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ab97051) at 1/50000 dilution

Predicted band size: 85 kDa

Observed band size: 85 kDa



Western blot - Anti-ABP1 antibody [EPR24299-52] (ab278497)

ABP1 Western blot staining using rabbit Anti-ABP1 antibody

Blocking and diluting buffer and concentration: 5% NFDM/TBST
The expression profile observed is consistent with what has been described in the literature (PMID:25037221, 12072962).

Negative control: human hypothalamus (PMID:12072962).

Samples are non-boiled as boiling may cause protein aggregates.

Exposure time: Lane 1: 15 seconds; Lanes 2-4: 103 seconds.

All lanes:
Western blot - Anti-ABP1 antibody [EPR24299-52] (ab278497) at 1/1000 dilution

Lane 1:
Human kidney tissue lysate at 20 µg

Lane 2:

Human colon tissue lysate at 20 µg

Lane 3:
Human stomach tissue lysate at 20 µg

Lane 4:
Human hypothalamus tissue lysate at 20 µg

Secondary

All lanes:
VeriBlot for IP secondary antibody(HRP)(ab131366) at 1/2000 dilution

Predicted band size: 85 kDa

Observed band size: 85 kDa

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