abcam

ab282024

Anti-Peregrin/BRPF1 antibody [EPR24069-57] - BSA and Azide free

Recombinant | RabMAb | KO Validated

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	EPR24069-57
Purification technique	Affinity purification Protein A
Concentration	1.001 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Tested

Species	Mouse, Human
Dilution info	-

Notes	-

Expected

Species	Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

WB

Tested

Species	Mouse, Rat, Human
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Mouse, Rat, Human
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Mouse, Human
Dilution info	-
Notes	-

Expected

Species	Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Target data

See full target information BRPF1

Function	Scaffold subunit of various histone acetyltransferase (HAT) complexes, such as the MOZ/MORF and HBO1 complexes, which have a histone H3 acetyltransferase activity (PubMed:16387653, PubMed:24065767, PubMed:27939640). Plays a key role in HBO1 complex by directing KAT7/HBO1 specificity towards histone H3 'Lys-14' acetylation (H3K14ac) (PubMed:24065767). Some HAT complexes preferentially mediate histone H3 'Lys-23' (H3K23ac) acetylation (PubMed:27939640). Positively regulates the transcription of RUNX1 and RUNX2 (PubMed:18794358).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C

Notes

ab282024 is the carrier-free version of ab259840.

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	Peregrin/BRPF1 also known as Peregrins is a protein with a molecular mass around 130 kDa. It functions primarily as a component of the MOZ/MORF histone acetyltransferase (HAT) complex. Peregrin/BRPF1 plays a mechanical role in the regulation of gene expression by altering chromatin structure through histone modification. It is expressed in various tissues with higher expression in the brain and testis indicating its importance in neurological and reproductive functions.
Biological function summary	Peregrin/BRPF1 is a part of the MOZ/MORF complex which is important for acetylating histone H3 at lysine 23 influencing transcriptional activation. This action aids in transcription regulation and chromatin remodeling facilitating access of transcription factors to DNA. By participating in these processes Peregrin/BRPF1 helps maintain proper gene expression patterns essential for normal cell function and development.
Pathways	BRPF1 has roles in processes like the cell cycle and embryonic development pathways because its histone acetylation influences gene expression. It interacts with other acetyltransferases such as EP300 and CREBBP which play key roles in transcription regulation and chromatin remodeling within these pathways. These interactions highlight BRPF1's critical involvement in coordinating cellular events and developmental processes.
Associated diseases and disorders	Dysregulation of BRPF1 is associated with neurological disorders such as intellectual disability and specific cancers due to its role in chromatin remodeling and gene expression. In the context of intellectual disability it interacts with other proteins involved in chromatin structure like NSD1 and KDM6A. These connections illustrate the significant impact of Peregrin/BRPF1's regulation and its influence on health when its function becomes impaired.

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

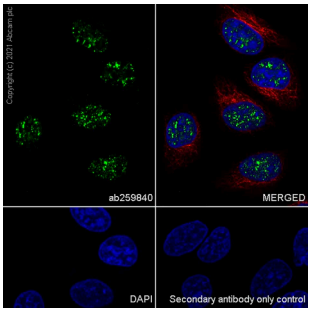
We do not recommend this combination. It is not covered by our product promise.

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.

7 product images



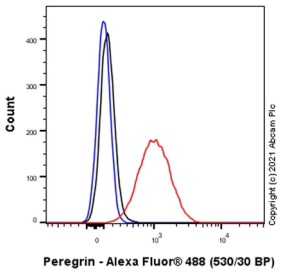
Immunocytochemistry/ Immunofluorescence - Anti-Peregrin/BRPF1 antibody [EPR24069-57] - BSA and Azide free (ab282024)

Peregrin/BRPF1 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Peregrin/BRPF1 antibody

This data was developed using ab259840, the same antibody clone in a different buffer formulation.
Immunofluorescent analysis of 100% methanol-fixed, 0.1% TritonX-100 permeabilized HeLa cells labelling Peregrin/BRPF1 with ab259840 at 1/50 (11.34 ug/ml) dilution, followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 dilution (Green). Confocal image showing nuclear staining in HeLa cells is observed.

ab195889 Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 dilution (Red). The Nuclear counterstain was DAPI (Blue).

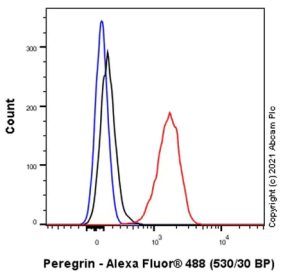
Secondary antibody only control: Secondary antibody is ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 dilution.



Flow Cytometry (Intracellular) - Anti-Peregrin/BRPF1 antibody [EPR24069-57] - BSA and Azide free (ab282024)

Peregrin/BRPF1 Flow Cytometry (Intracellular) staining using rabbit Anti-Peregrin/BRPF1 antibody

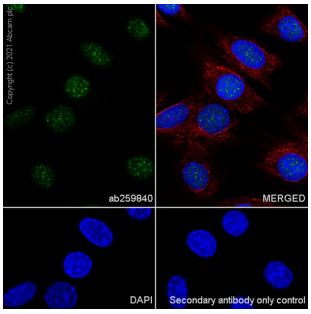
This data was developed using ab259840, the same antibody clone in a different buffer formulation.
Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized HeLa (Human cervix adenocarcinoma cell) cells labelling Peregrin/BRPF1 with ab259840 at 1/500 dilution (0.1µg) (Red) compared 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.



Flow Cytometry (Intracellular) - Anti-Peregrin/BRPF1 antibody [EPR24069-57] - BSA and Azide free (ab282024)

Peregrin/BRPF1 Flow Cytometry (Intracellular) staining using rabbit Anti-Peregrin/BRPF1 antibody

This data was developed using ab259840, the same antibody clone in a different buffer formulation.
Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized 4T1 (mouse mammary gland carcinoma epithelial cell) cells labelling Peregrin/BRPF1 with ab259840 at 1/500 dilution (0.1µg) (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.



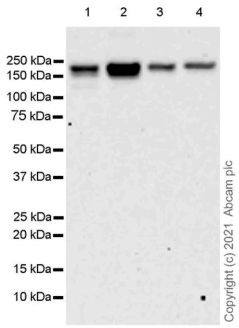
Immunocytochemistry/ Immunofluorescence - Anti-Peregrin/BRPF1 antibody [EPR24069-57] - BSA and Azide free (ab282024)

Peregrin/BRPF1 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Peregrin/BRPF1 antibody

This data was developed using ab259840, the same antibody clone in a different buffer formulation.
Immunofluorescent analysis of 100% methanol-fixed, 0.1% TritonX-100 permeabilized NIH/3T3 cells labelling Peregrin/BRPF1 with ab259840 at 1/50 (11.34 ug/ml) dilution, followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 dilution (Green). Confocal image showing nuclear staining in NIH/3T3 cells is observed.

ab195889 Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 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 dilution.



Western blot - Anti-Peregrin/BRPF1 antibody [EPR24069-57] - BSA and Azide free (ab282024)

Peregrin/BRPF1 Western blot staining using rabbit Anti-Peregrin/BRPF1 antibody

This data was developed using ab259840, the same antibody clone in a different buffer formulation.
Blocking and diluting buffer and concentration: 5% NFDM/TBST

The molecular weight observed is consistent with what has been described in the literature (PMID: 7906940).

Lysates were made freshly and used in WB immediately to minimize protein degradation.

Exposure time: 3 minutes

All lanes:
Western blot - Anti-Peregrin/BRPF1 antibody [EPR24069-57] (ab259840) at 1/1000 dilution

Lane 1:
HeLa (human cervix adenocarcinoma epithelial cell) whole cell lysate at 20 µg

Lane 2:
293T (human embryonic kidney epithelial cell) whole cell lysate at 20 µg

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

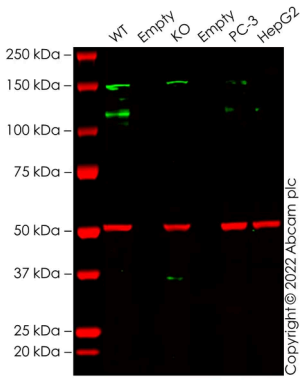
Lane 4:
PC-12 (rat adrenal gland pheochromocytoma) whole cell lysate at 20 µg

Secondary

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

Predicted band size: 137 kDa

Observed band size: 150-160 kDa



Western blot - Anti-Peregrin/BRPF1 antibody [EPR24069-57] - BSA and Azide free (ab282024)

Peregrin/BRPF1 Western blot staining using rabbit Anti-Peregrin/BRPF1 antibody

False colour image of Western blot: Anti-Peregrin/BRPF1 antibody [EPR24069-57] staining at 1/500 dilution, shown in green; Mouse anti-Alpha Tubulin [DM1A] (ab7291) loading control staining at 1/20000 dilution, shown in red. In Western blot, ab259840 was shown to bind specifically to Peregrin/BRPF1. A band was observed at 120 kDa in wild-type HEK-293T cell lysates with no signal observed at this size in BRPF1 knockout cell line ab266549 (knockout cell lysate ab258795). To generate this image, wild-type and BRPF1 knockout HEK-293T cell lysates were analysed. First, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in 5 % 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 IgG H&L (IRDye® 800CW) preabsorbed (ab216773) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed (ab216776) at 1/20000 dilution.
Lanes 1, 2, 3, 5 and 6:
Western blot - Anti-Peregrin/BRPF1 antibody [EPR24069-57] (ab259840) at 1/500 dilution

Lane 4:
Western blot - Anti-Peregrin/BRPF1 antibody [EPR24069-57] (ab259840)

Lane 1:
Wild-type HEK-293T cell lysate at 20 µg

Lanes 2 - 3:
BRPF1 knockout HEK-293T cell lysate at 20 µg

Lane 2:
Western blot - Human BRPF1 (Peregrin) knockout HEK-293T cell line (ab266549)

Lane 4:
Empty

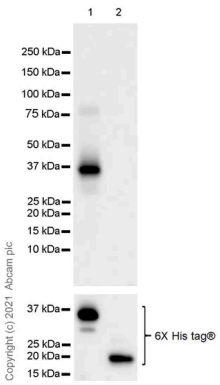
Lane 5:
PC-3 cell lysate at 20 µg

Lane 6:
HepG2 cell lysate at 20 µg

Performed under reducing conditions.

Predicted band size: 137 kDa

Observed band size: 120 kDa



Western blot - Anti-Peregrin/BRPF1 antibody [EPR24069-57] - BSA and Azide free (ab282024)

This data was developed using ab259840, the same antibody clone in a different buffer formulation.
Blocking and diluting buffer and concentration: 5% NFDM/TBST

Exposure time: 8 seconds

All lanes:
Western blot - Anti-Peregrin/BRPF1 antibody [EPR24069-57] (ab259840) at 1/5000 dilution

Lane 1:
His-tagged human BRPF1 recombinant protein at 0.01 µg

Lane 2:
His-tagged human BRPF3 recombinant protein at 0.2 µg

Secondary

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

Predicted band size: 137 kDa

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