abcam

ab250906

Anti-APPBP1 antibody [EPR15732] - 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	EPR15732

Reactivity data

IP

Tested

Species	Human
Dilution info	-
Notes	-

Expected

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

WB

Tested

Species	Human, Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

Expected

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

Target data

See full target information NAE1

Function Regulatory subunit of the dimeric UBA3-NAE1 E1 enzyme. E1 activates NEDD8 by first adenylating its C-terminal glycine residue with ATP, thereafter linking this residue to the side chain of the catalytic cysteine, yielding a NEDD8-UBA3 thioester and free AMP. E1 finally transfers NEDD8 to the catalytic cysteine of UBE2M. Necessary for cell cycle progression through the S-M checkpoint. Overexpression of NAE1 causes apoptosis through deregulation of NEDD8 conjugation. The covalent attachment of NEDD8 to target proteins is known as 'neddylation' and the process is involved in the regulation of cell growth, viability and development.

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

ab250906 is the carrier-free version of ab187142.

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	The protein 'APPBP1' also known as APP-binding protein 1 functions as part of cellular processes through its role in protein modification. APPBP1 forms a dimeric complex with Uba3 together activating NEDD8 which is a small ubiquitin-like modifier. This protein has a molecular weight of approximately 58 kDa and is

	widely expressed across various tissues including the brain and liver. Its comprehensive roles make it essential for normal cellular operations.
Biological function summary	APPBP1 interacts within a complex known as the NEDD8-activating enzyme. This complex is essential in the neddylation pathway influencing protein degradation through the ubiquitin-proteasome system. By conjugating NEDD8 to target proteins APPBP1 controls many processes such as cell cycle regulation signal transduction and transcription. It is of special interest in research involving cellular signaling because neddylation modifies the activity and stability of many substrate proteins involved in these critical cellular functions.
Pathways	The involvement of APPBP1 in ubiquitin-like protein pathways highlights its influence on cellular homeostasis. The protein is associated with the neddylation and ubiquitination pathways influencing other members such as cullin proteins involved in cell cycle control and other cellular processes. APPBP1-related interactions play a significant role in ensuring the timely degradation of specific proteins maintaining balance within the cell's regulatory mechanisms.
Associated diseases and disorders	Abnormalities in APPBP1 activity have been linked to neurodegenerative diseases such as Alzheimer's disease and cancer. In Alzheimer's disease APPBP1 is related to the APP protein and altered neddylation might contribute to disease pathology through dysfunctional protein degradation pathways. In cancer disrupted neddylation can result in uncontrolled cell proliferation due to improper regulation of cell cycle pathways. Understanding the function of APPBP1 could provide insights into developing therapeutic strategies for these conditions.

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

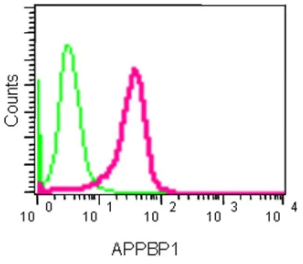
We do not recommend this combination. It is not covered by our product promise.

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.

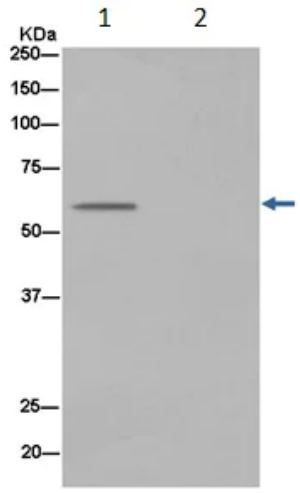
4 product images



Flow Cytometry (Intracellular) - Anti-APPBP1 antibody [EPR15732] - BSA and Azide free (ab250906)

APPBP1 Flow Cytometry (Intracellular) staining using rabbit Anti-APPBP1 antibody

This data was developed using ab187142, the same antibody clone in a different buffer formulation.
Intracellular flow cytometric analysis of HeLa cells (2% paraformaldehyde-fixed) labeling APPBP1 with ab187142 at 1/120 dilution (red) or a rabbit IgG (negative) (green), followed by Goat anti rabbit IgG (FITC) secondary at 1/150 dilution.

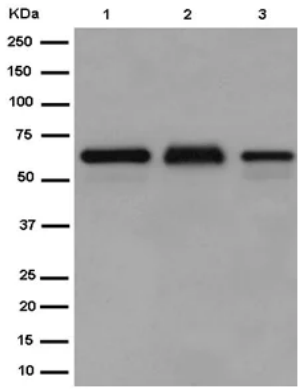


Immunoprecipitation - Anti-APPBP1 antibody [EPR15732] - BSA and Azide free (ab250906)

This data was developed using ab187142, the same antibody clone in a different buffer formulation.
Western blot analysis of immunoprecipitation pellet from Human fetal brain lysate immunoprecipitated using ab187142 at 1/50 dilution (lane 1) or PBS control (lane 2).
Secondary: Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG at 1/1500 dilution.

All lanes:
Immunoprecipitation - Anti-APPBP1 antibody [EPR15732] (ab187142)

Predicted band size: 60 kDa



Western blot - Anti-APPBP1 antibody [EPR15732] - BSA and Azide free (ab250906)

This data was developed using ab187142, the same antibody clone in a different buffer formulation.
All lanes:
Western blot - Anti-APPBP1 antibody [EPR15732] (ab187142) at 1/1000 dilution

Lane 1:
HeLa cell lysate at 20 µg

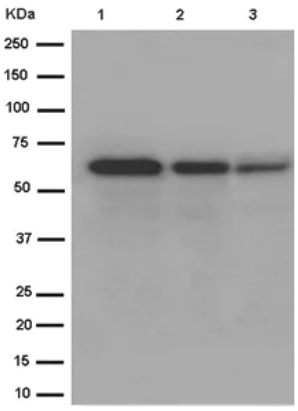
Lane 2:
A431 cell lysate at 20 µg

Lane 3:
Human fetal muscle tissue lysate at 20 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

Predicted band size: 60 kDa



Western blot - Anti-APPBP1 antibody [EPR15732] - BSA and Azide free (ab250906)

This data was developed using ab187142, the same antibody clone in a different buffer formulation.
All lanes:
Western blot - Anti-APPBP1 antibody [EPR15732] (ab187142) at 1/1000 dilution

Lane 1:
Rat brain tissue lysate at 10 µg

Lane 2:
Rat heart tissue lysate at 10 µg

Lane 3:
Rat spleen tissue lysate at 10 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

Predicted band size: 60 kDa

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