abcam

ab236137

Anti-PCBP2/hnRNP E2 antibody [EPR14858] - 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	EPR14858
Purification technique	Affinity purification Protein A
Concentration	1.1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Tested

Species	Human
Dilution info	-

Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

WB

Expected

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

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	-
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

IHC-P

Tested

Species	Human
Dilution info	-
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

Target data

See full target information PCBP2

Function

Single-stranded nucleic acid binding protein that binds preferentially to oligo dC (PubMed:12414943, PubMed:7607214). Major cellular poly(rC)-binding protein (PubMed:12414943). Also binds poly(rU) (PubMed:12414943). Acts as a negative regulator of antiviral signaling (PubMed:19881509, PubMed:35322803). Negatively regulates cellular antiviral responses mediated by MAVS signaling (PubMed:19881509). It acts as an adapter between MAVS and the E3 ubiquitin ligase ITCH, therefore triggering MAVS ubiquitination and degradation (PubMed:19881509). Negativeley regulates the cGAS-STING pathway via interaction

with CGAS, preventing the formation of liquid-like droplets in which CGAS is activated (PubMed:35322803). Together with PCBP1, required for erythropoiesis, possibly by regulating mRNA splicing (By similarity). (Microbial infection) In case of infection by poliovirus, binds to the viral internal ribosome entry site (IRES) and stimulates the IRES-mediated translation (PubMed:12414943, PubMed:24371074). Also plays a role in initiation of viral RNA replication in concert with the viral protein 3CD (PubMed:12414943).

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

ab236137 is the carrier-free version of ab184962.

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	PCBP2 also known as hnRNP E2 is a poly(C) binding protein with a molecular weight of approximately 38 kDa. It binds to single-stranded poly(C) sequences in RNA molecules. PCBP2 is widely expressed in various tissues where it modulates pre-mRNA splicing RNA stability and translation. It functions as part of ribonucleoprotein complexes and is known for its role in regulating mRNA transport and localization within the cell.
Biological function summary	A significant function of PCBP2 involves the maintenance of mRNA stability particularly for certain growth factor and cytokine mRNAs. PCBP2 is part of the ribonucleosome complex supporting various cellular processes by regulating the turnover of target mRNAs. Through these actions it helps control cellular proliferation and immune responses. PCBP2 collaborates with several other proteins influencing cellular adaptation to stress and changes in the environment.
Pathways	PCBP2 plays key roles in the Wnt signaling and Toll-like receptor pathways. In the Wnt signaling pathway its interaction with mRNA targets such as beta-catenin is significant for cellular communication processes. In the Toll-like receptor pathway it works alongside proteins like MyD88 modulating innate immune responses to pathogens. PCBP2's participation in these pathways highlights its versatility and influence on cellular and systemic communication networks.
Associated diseases and disorders	Researchers have linked PCBP2 to cancer particularly due to its involvement with oncogene regulation. Disruptions in the expression of PCBP2 can affect cell cycle control contributing to tumorigenesis. PCBP2 also connects with amyotrophic lateral sclerosis (ALS) through its interaction with proteins like TDP-43 which are critical in neurodegenerative disease pathways. Understanding PCBP2's function and its connections to these conditions remains important for developing therapeutic strategies.

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

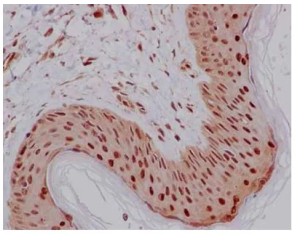
We do not recommend this combination. It is not covered by our product promise.

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.

5 product images

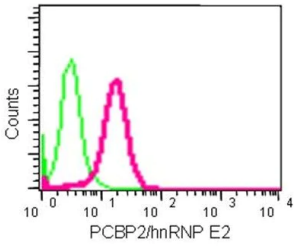


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PCBP2/hnRNP E2 antibody [EPR14858] - BSA and Azide free (ab236137)

PCBP2/hnRNP E2 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-PCBP2/hnRNP E2 antibody

Immunohistochemical analysis of paraffin-embedded human skin tissue labeling PCBP2/hnRNP E2 with ab184962 at 1/100 dilution followed by pre-diluted HRP-conjugated secondary antibody and counter-stained with Hematoxylin.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab184962).

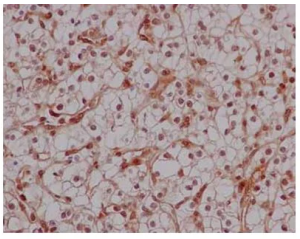
Perform heat mediated antigen retrieval with EDTA buffer pH 9 before commencing with IHC staining protocol.



Flow Cytometry (Intracellular) - Anti-PCBP2/hnRNP E2 antibody [EPR14858] - BSA and Azide free (ab236137)

PCBP2/hnRNP E2 Flow Cytometry (Intracellular) staining using rabbit Anti-PCBP2/hnRNP E2 antibody

Intracellular flow cytometric anlaysis of HeLa cells (2% paraformaldehyde-fixed) labeling PCBP2/hnRNP E2 with ab184962 at 1/110 dilution (red) or a rabbit IgG (negative) (green), followed by Goat anti rabbit IgG (FITC) secondary at 1/150 dilution.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab184962).

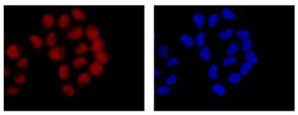


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PCBP2/hnRNP E2 antibody [EPR14858] - BSA and Azide free (ab236137)

PCBP2/hnRNP E2 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-PCBP2/hnRNP E2 antibody

Immunohistochemical analysis of paraffin-embedded Human clear cell carcinoma of kidney tissue labeling PCBP2/hnRNP E2 with ab184962 at 1/100 dilution followed by pre-diluted HRP-conjugated secondary antibody and counter-stained with Hematoxylin.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab184962).

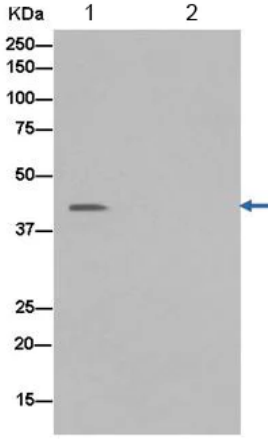
Perform heat mediated antigen retrieval with EDTA buffer pH 9 before commencing with IHC staining protocol.



Immunocytochemistry/ Immunofluorescence - Anti-PCBP2/hnRNP E2 antibody [EPR14858] - BSA and Azide free (ab236137)

PCBP2/hnRNP E2 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-PCBP2/hnRNP E2 antibody

Immunofluorescent analysis of HeLa cells (-20°C Acetone-fixed) labeling PCBP2/hnRNP E2 with ab184962 at 1/250 dilution (red) followed by Goat anti rabbit IgG (Alexa Fluor®555) secondary at 1/200 dilution and counter-stained with DAPI (blue).
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab184962).



Immunoprecipitation - Anti-PCBP2/hnRNP E2 antibody [EPR14858] - BSA and Azide free (ab236137)

Immunoprecipitation analysis of HeLa lysates labeling PCBP2/hnRNP E2 with ab18492 at 1/50 dilution (Lane 1) and PBS (Lane 2). Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG used as secondary antibody.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab184962).

All lanes:
Immunoprecipitation - Anti-PCBP2/hnRNP E2 antibody [EPR14858] (ab184962)

Predicted band size: 39 kDa

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