abcam

ab250242

Anti-PGBD1 antibody [EPR13883] - 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	EPR13883
Purification technique	Affinity purification

Reactivity data

ICC/IF

Tested

Species	Human
Dilution info	-
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	-
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

Target data

See full target information PGBD1

Function	Transposase-derived from PiggyBac DNA transposons. Although it has been fully domesticated and lacks transposase activity, PGBD1 has acquired DNA-binding capability (PubMed:12955498, PubMed:35609796, PubMed:36205081). It preferentially binds in and around genes involved in neuronal development, leading to their transcriptional pausing. Notably, PGBD1 suppresses paraspeckle assembly in neuronal cells (PubMed:36205081).

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

ab250242 is the carrier-free version of ab180598.

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	PGBD1 also known as PiggyBac Transposable Element-Derived 1 is a DNA transposase-like protein. The human PGBD1 protein has a molecular mass of approximately 98 kDa. It is a member of the piggyBac family of transposases and is highly expressed in the brain and various other tissues. PGBD1 has a sequence that shows homology to known active transposases but lacks the catalytic triad of DDD signature suggesting a more complex role beyond simple transposition mechanics.
Biological function summary	The gene encoding PGBD1 is involved in processes related to genomic stability and chromatin remodeling although it does not form part of a known multiprotein complex. This protein plays roles in gene expression regulation and might affect chromatin through non-transposase activity. It is hypothesized that PGBD1 might bind to specific DNA sequences impacting chromatin state and gene activity. Its exact biological function remains under investigation but the regulation of neural-related genes implicates a role in neural tissue development and maintenance.
Pathways	PGBD1 is involved in the regulation of chromatin structure and gene expression pathways. Its interactions influence pathways like the DNA damage response contributing to cellular reactions to stress at the genetic level. The protein may not operate alone but has functional associations with chromatin remodelers such as Polycomb group proteins which are important in managing gene expression patterns during development and differentiation.
Associated diseases and disorders	Dysregulation or mutations of PGBD1 suggest potential links with neurodevelopmental disorders and cancer. Altered expression patterns have been noted in neuroblastoma implying interactions with proteins like MYCN an important oncogene. PGBD1's effect on chromatin dynamics could influence the genomic environment leading to disease-associated changes in gene expression. Further research seeks to clarify these connections and determine potential therapeutic targets or biomarkers.

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

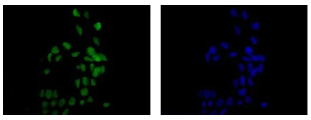
We do not recommend this combination. It is not covered by our product promise.

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.

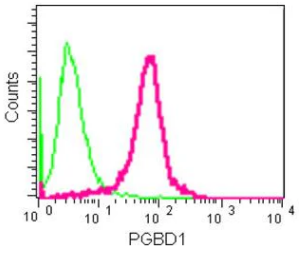
3 product images



Immunocytochemistry/ Immunofluorescence - Anti-PGBD1 antibody [EPR13883] - BSA and Azide free (ab250242)

PGBD1 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-PGBD1 antibody

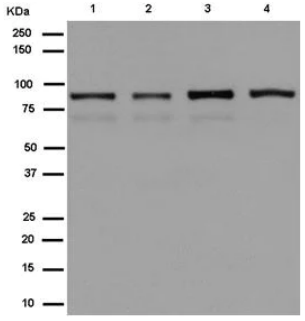
This data was developed using ab180598, the same antibody clone in a different buffer formulation.
Immunofluorescence analysis of 293 cells (fixative 4% paraformaldehyde) labeling PGBD1 with ab180598 at a 1/500 dilution (left image), and counterstained with Dapi (right image). Goat anti rabbit IgG (Dylight 488) secondary used at a 1/200 diution



Flow Cytometry (Intracellular) - Anti-PGBD1 antibody [EPR13883] - BSA and Azide free (ab250242)

PGBD1 Flow Cytometry (Intracellular) staining using rabbit Anti-PGBD1 antibody

This data was developed using ab180598, the same antibody clone in a different buffer formulation.
Intracellular Flow Cytometry analysis of HeLa cells using ab180598 at a 1/20 dilution (red) or a rabbit monoclonal IgG (negative) (green). Goat anti rabbit IgG (FITC) secondary used at a 1/150 dilution.



Western blot - Anti-PGBD1 antibody [EPR13883] - BSA and Azide free (ab250242)

This data was developed using ab180598, the same antibody clone in a different buffer formulation.
All lanes:
Western blot - Anti-PGBD1 antibody [EPR13883] (ab180598) at 1/10000 dilution

Lane 1:
HeLa lysate at 20 µg

Lane 2:
Jurkat lysate at 20 µg

Lane 3:

293 lysate at 20 µg

Lane 4:
K562 lysate at 20 µg

Secondary

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

Predicted band size: 93 kDa

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