abcam

ab92291

Anti-PBR antibody

Key facts

Isotype	IgG
Host species	Goat
Storage buffer	pH: 7.3 Preservative: 0.02% Sodium azide Constituents: 0.5% BSA, 0.5% Tris buffered saline
Form	Liquid
Clonality	Polyclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Purification technique	Affinity purification Immunogen
Concentration	0.5 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	Purified from goat serum by ammonium sulphate precipitation followed by antigen affinity chromatography using the immunizing peptide.

Reactivity data

Flow Cyt

Tested

Species	Mouse
Dilution info	10 µg/mL
Notes	-

WB

Tested

Species	Mouse
Dilution info	0.01-0.03 µg/mL
Notes	Primary incubation 1 hour at room temperature.

IHC-P

Tested

Species	Mouse
Dilution info	10 µg/mL
Notes	-

Target data

See full target information Tspo

Function Can bind protoporphyrin IX and may play a role in the transport of porphyrins and heme (By similarity). Was initially identified as peripheral-type benzodiazepine receptor; can also bind isoquinoline carboxamides. Promotes the transport of cholesterol across mitochondrial membranes and may play a role in lipid metabolism (PubMed:9832438, PubMed:24814875), but its precise physiological role is controversial. According to some reports, it is not required for steroid hormone biosynthesis (PubMed:24174323, PubMed:24936060).

Storage

Shipped at conditions	Blue Ice
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

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	PBR also known as the Peripheral Benzodiazepine Receptor is a protein predominantly found in the outer mitochondrial membrane. It has alternate names like Translocator Protein (TSPO) and the mass of this protein is approximately 18 kDa. PBR is expressed in various tissues but shows high levels in steroidogenic tissues like adrenal glands as well as in the brain heart liver and kidneys. The abundant presence in these tissues highlights its importance in a variety of physiological functions.
Biological function summary	PBR interacts with cholesterol for the synthesis of steroid hormones making it important for steroidogenesis. PBR is a part of the Mitochondrial Permeability Transition Pore complex (MPTP) involved in regulating the transport of molecules across the mitochondrial membrane. Through its association with the MPTP PBR plays a significant role in mitochondrial functions such as apoptosis and energy metabolism. The interaction with other molecules also includes the binding with benzodiazepines impacting processes like immune response and cell proliferation.
Pathways	PBR plays a role in the steroid biosynthesis and apoptosis pathways. It interfaces with the StAR (Steroidogenic Acute Regulatory) protein to facilitate cholesterol transport into mitochondria the initial step in steroid hormone production. PBR is also involved in pathways that regulate apoptosis and mitochondrial function linking it to different cellular processes through interactions with proteins like VDAC (Voltage-Dependent Anion Channel).
Associated diseases and disorders	PBR has relevance to conditions such as neurodegenerative diseases and cancer. PBR expression changes in disorders like Alzheimer's disease where it might reflect mitochondrial dysfunctions. It has also been associated with certain cancers where aberrant PBR activity might contribute to altered cell proliferation and apoptosis. Proteins like caspases are involved in the apoptotic pathways connected with PBR highlighting its involvement in disease processes.

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

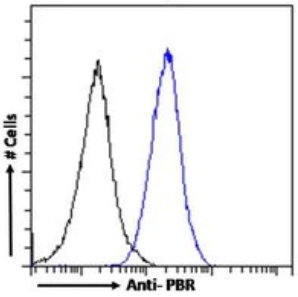
We do not recommend this combination. It is not covered by our product promise.

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.

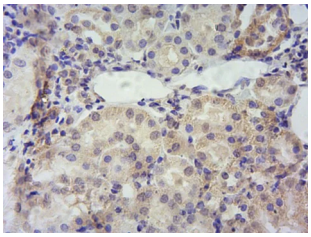
3 product images



Flow Cytometry - Anti-PBR antibody (ab92291)

PBR Flow Cytometry staining using goat Anti-PBR antibody

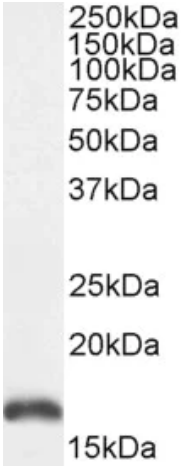
Flow cytometric analysis of paraformaldehyde fixed NIH3T3 cells (blue line), permeabilized with 0.5% Triton using ab92291 at 10ug/ml followed by Alexa Fluor 488 secondary antibody at 1ug/ml. IgG control: Unimmunized goat IgG (black line) followed by Alexa Fluor 488 secondary antibody.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PBR antibody (ab92291)

PBR Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using goat Anti-PBR antibody

Staining of paraffin embedded Mouse Kidney using ab92291 at 10 µg/mL. Heat induced antigen retrieval with citrate buffer pH 6, HRP-Staining.



Western blot - Anti-PBR antibody (ab92291)

Lysates in RIPA buffer. Detected by chemiluminescence
All lanes:
Western blot - Anti-PBR antibody (ab92291) at 0.01 µg/mL

All lanes:
Mouse Kidney lysate at 35 µg

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