abcam

ab236779

Anti-Prostaglandin E Receptor EP2/PTGER2 antibody [EPR8030(B)] - 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	EPR8030(B)
Purification technique	Affinity purification Protein A
Concentration	1.054 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Expected

Species	Mouse, Rat, Human, Cow
Dilution info	Use at an assay dependent concentration.

Notes	-

IHC-P

Not recommended

Species	Human, Mouse, Rat, Cow
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	-
Notes	-

Predicted

Species	Mouse, Rat, Cow
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/80 - 1/500
Notes	ab199376- Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Predicted

Species	Mouse, Rat, Cow
Dilution info	-

Notes	-

Target data

See full target information Prostaglandin E2 receptor EP2 subtype

Function	Receptor for prostaglandin E2 (PGE2). The activity of this receptor is mediated by G(s) proteins that stimulate adenylate cyclase. The subsequent raise in intracellular cAMP is responsible for the relaxing effect of this receptor on smooth muscle.

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

ab236779 is the carrier-free version of ab167171.

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	Prostaglandin E Receptor EP2 also known as PTGER2 or EP2 receptor is a G-protein coupled receptor with a molecular mass of approximately 53 kDa. This receptor primarily binds prostaglandin E2 (PGE2) mediating various cellular responses. EP2 receptor is expressed in tissues such as the brain kidneys lungs and immune cells. Its activation leads to the stimulation of adenylyl cyclase increasing levels of cyclic AMP (cAMP) within the cell.
Biological function summary	The EP2 receptor plays a role in vasodilation immune modulation and regulation of pain and inflammation. It does not act as part of a large protein complex but rather exerts its effects individually through its coupling with G-proteins. EP2 receptor stimulation results in smooth muscle relaxation and has implications in neuroinflammation and renal function.
Pathways	The EP2 receptor is involved in the prostaglandin signaling pathway and contributes to the inflammatory response pathway. It shares a connection with other receptors such as EP1 EP3 and EP4 which also bind PGE2 but induce different cellular responses. These pathways integrate signals that modulate processes like inflammation and immune responses highlighting EP2's role in maintaining physiological balance.
Associated diseases and disorders	EP2 receptor activity is associated with conditions like asthma and Alzheimer's disease. In asthma the receptor's activity may influence airway hyperresponsiveness through its effects on smooth muscle and immune cells. In Alzheimer's EP2 receptor-related pathways may contribute to neuroinflammation which is linked with disease progression. Connections with proteins like COX-2 can be noted in these disorders as COX-2-dependent prostaglandin synthesis directly affects EP2 receptor signaling and subsequent cellular outcomes.

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.

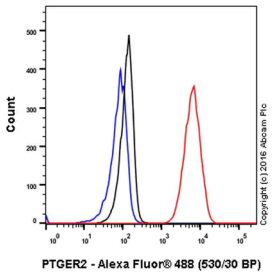
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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



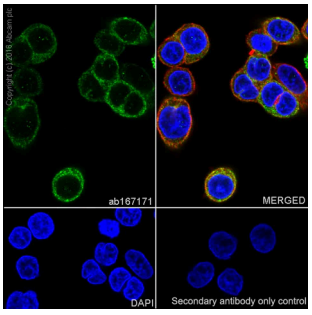
Flow Cytometry (Intracellular) - Anti-Prostaglandin E Receptor EP2/PTGER2 antibody [EPR8030(B)] - BSA and Azide free (ab236779)

Prostaglandin E Receptor EP2/PTGER2 Flow Cytometry (Intracellular) staining using rabbit Anti-Prostaglandin E Receptor EP2/PTGER2 antibody

ab167171 staining Prostaglandin E Receptor EP2/PTGER2 in theWI-38 (Human Fetal Lung Fibroblast) cell lineby intracellular flow cytometry. Cells were fixed with 4% paraformaldehyde and the sample was incubated with the primary antibody at a dilution of 1/80. A goat anti rabbit IgG (Alexa Fluor® 488) at a dilution of 1/2000was used as the secondary antibody.
Isoytype control: Rabbit monoclonal IgG (Black)

Unlabelled control: Cell without incubation with primary antibody and secondary antibody (Blue)

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab167171).

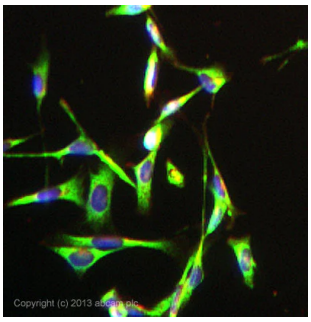


Immunocytochemistry/ Immunofluorescence - Anti-Prostaglandin E Receptor EP2/PTGER2 antibody [EPR8030(B)] - BSA and Azide free (ab236779)

Prostaglandin E Receptor EP2/PTGER2 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Prostaglandin E Receptor EP2/PTGER2 antibody

ab167171 staining Prostaglandin E Receptor EP2/PTGER2 in WI-38 (Human Fetal Lung Fibroblast) cells by ICC/IF (Immunocytochemistry/immunofluorescence). Cells were fixed with 4% Paraformaldehyde and permeabilized with 0.1% Triton X-100. Samples were incubated with primary antibody at a dilution of 1/250. A goat anti rabbit IgG (Alexa Fluor® 488) (ab150077) was used as the secondary antibody at 1/1000. ab7291 and ab150120 were used as counterstains for primary antibody ab167171 and secondary antibody ab150077 respectively and DAPI was used as a nuclear counterstain.
Negative control 1: Rabbit primary antibody and anti-mouse secondary antibody (ab150120)
Negative control 2: Mouse primary antibody (ab7291) and anti-rabbit secondary antibody (ab150077)

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab167171).



Immunocytochemistry/ Immunofluorescence - Anti-Prostaglandin E Receptor EP2/PTGER2 antibody [EPR8030(B)] - BSA and Azide free (ab236779)

Prostaglandin E Receptor EP2/PTGER2 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Prostaglandin E Receptor EP2/PTGER2 antibody

ab167171 stained SV40LT-SMC (rat) cells. The cells were 100% methanol fixed (5 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody ab167171 at 1/200 dilution overnight at +4°C. The secondary antibody (green) was DyLight® 488 goat anti- rabbit (ab96899) IgG (H+L) used at a 1/250 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab167171).

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