abcam

ab178860

Anti-PPAR gamma antibody [EPR18516]

Anti-PPAR gamma antibody [EPR18516] (ab178860) is a rabbit monoclonal antibody detecting PPAR gamma in **Western Blot, Flow Cytometry (Intra), ICC/IF**. Suitable for **Human**.

- Biophysical QC for unrivalled batch-batch consistency
- Over 40 publications

Recombinant | RabMAb | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR18516
Purification technique	Affinity purification Protein A
Specificity	Expression levels of PPARγ protein vary with sample type. Induction may be required if endogenous expression is low.
Concentration	1.701 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Tested

Species	Human
Dilution info	1/1000
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/250
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/1500
Notes	-

Target data

See full target information PPARG

Function

Ligand-activated transcription factor that forms obligate heterodimers with the retinoic acid receptor and acts as a key regulator of biological processes, such as adipocyte differentiation, lipid metabolism, glucose homeostasis and beta-oxidation of fatty acids (PubMed:16150867, PubMed:20829347, PubMed:23525231, PubMed:8702406, PubMed:8706692, PubMed:9065481). Activated by lipid ligands: binds peroxisome proliferators, such as hypolipidemic drugs, and fatty acids, such as prostaglandin J2 metabolites (PubMed:16150867, PubMed:20829347, PubMed:23525231, PubMed:8702406, PubMed:8706692, PubMed:9065481). Ligand-binding results in a conformational change in the receptor, promoting dissociation of repressors and recruitment of coactivators, and subsequent activation of target gene expression (PubMed:16150867, PubMed:20829347, PubMed:23525231, PubMed:8702406, PubMed:8706692, PubMed:9065481). Specifically binds to DNA specific PPAR response elements (PPRE) and modulates the transcription of its target genes, such as acyl-CoA oxidase (By similarity). Acts as a critical regulator of gut homeostasis by suppressing NF-kappa-B-mediated pro-inflammatory responses (PubMed:20829347). Plays a role in the regulation of cardiovascular circadian rhythms by regulating the transcription of BMAL1 in the blood vessels (By similarity). Isoform 2. Nuclear receptor that acts as the key factor

controlling the development of adipocytes (By similarity). Specifically activated by 15-deoxy-delta12,14-prostaglandin J2 ligand during early adipogenesis, driving differentiation of all types of adipocytes (white, beige and brown) (By similarity). Acts together with retinoic acid receptor RXRA, forming the ARF6 complex, which acts as a key regulator of the tissue-specific adipocyte P2 (aP2) enhancer (By similarity). Following recruitment of TLE3, promotes differentiation of white adipocytes (By similarity). Following recruitment of PRDM16, promotes differentiation of myoblastic precursors into brown adipose cells (BAT), which are specialized in dissipating energy in the form of heat in response to cold or excess feeding (By similarity). Also mediates diffentiation of white adipocytes into beige adipocytes by mediating recruitment of PRDM16 (By similarity). (Microbial infection) Upon treatment with M.tuberculosis or its lipoprotein LpqH, phosphorylation of MAPK p38 and IL-6 production are modulated, probably via this protein.

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage duration	1-2 weeks
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

Notes

What is this antibody validated in?
Anti-PPAR gamma antibody [EPR18516] (ab178860) is a rabbit recombinant monoclonal antibody and is validated for use in Western Blot (WB), Flow Cytometry (Intra), Immunocytochemistry/immunofluorescence (ICC/IF) in Human samples.

What is the molecular weight of PPAR gamma?
Anti-PPAR gamma [EPR18516] (ab178860) specifically detects a band for PPAR gamma (UniProt: P37231) at a molecular weight of 58kDa.

Trusted by the scientific community
Anti-PPAR gamma [EPR18516] (ab178860) was first used in a scientific publication in 2017 and has been cited over 40 times in peer-reviewed journals.

Other related products
We have a range of other formats of antibody clone [EPR18516] also available for your convenience: ab178860,

Carrier free - ab238441, APC - ab310835, PE - ab310910, Alexa Fluor® 647 - ab311099, Alexa Fluor® 594 - ab311714, Alexa Fluor® 568 - ab312990, Alexa Fluor® 555 - ab313195

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.

Trial sizes available!
Test your antibody or perform pre-screening before committing to a larger quantity. Sold in 20µl. Discover our selection of trial-size antibodies.

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

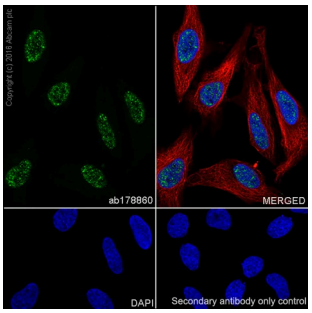
We do not recommend this combination. It is not covered by our product promise.

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.

6 product images

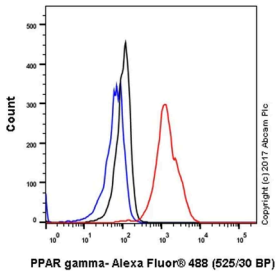


Immunocytochemistry/ Immunofluorescence - Anti-PPAR gamma antibody [EPR18516] (ab178860)

PPAR gamma Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-PPAR gamma antibody

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HeLa (Human epithelial cell line from cervix adenocarcinoma) cells labeling PPAR gamma with ab178860 at 1/250 dilution, followed by Goat anti-rabbit IgG (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution (green). Confocal image showing nuclear and weak cytoplasmic staining on HeLa cell line.
The nuclear counter stain is DAPI (blue). Tubulin is detected with ab195889 (Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594)) at 1/200 dilution (red).

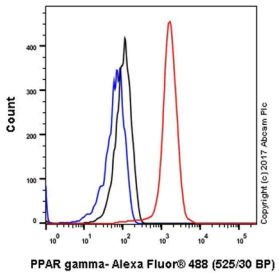
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat anti-rabbit IgG (Alexa Fluor® 488) (ab150077) at 1/1000 dilution.



Flow Cytometry (Intracellular) - Anti-PPAR gamma antibody [EPR18516] (ab178860)

PPAR gamma Flow Cytometry (Intracellular) staining using rabbit Anti-PPAR gamma antibody

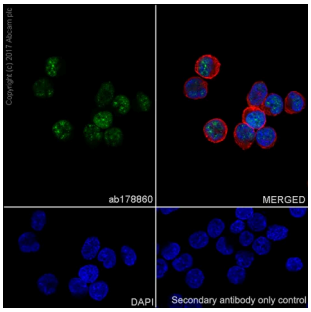
Intracellular flow cytometric analysis of 4% paraformaldehyde-fixed K562 (Human chronic myelogenous leukemia cell line from bone marrow) cells labeling PPAR gamma with ab178860 at 1/1500 dilution (red) compared with a rabbit monoclonal IgG isotype control (ab172730; black) and an unlabeled control (cells without incubation with primary antibody and secondary antibody; blue). Goat anti rabbit IgG (Alexa Fluor® 488) at 1/2000 dilution was used as the secondary antibody.



Flow Cytometry (Intracellular) - Anti-PPAR gamma antibody [EPR18516] (ab178860)

PPAR gamma Flow Cytometry (Intracellular) staining using rabbit Anti-PPAR gamma antibody

Intracellular flow cytometric analysis of 4% paraformaldehyde-fixed HeLa (Human epithelial cell line from cervix adenocarcinoma) cells labeling PPAR gamma with ab178860 at 1/1500 dilution (red) compared with a rabbit monoclonal IgG isotype control (ab172730; black) and an unlabeled control (cells without incubation with primary antibody and secondary antibody; blue). Goat anti rabbit IgG (Alexa Fluor® 488) at 1/2000 dilution was used as the secondary antibody.

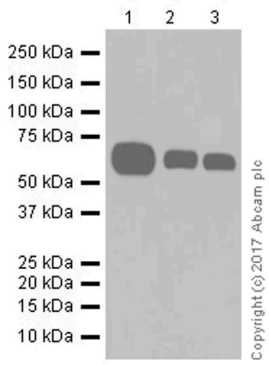


Immunocytochemistry/ Immunofluorescence - Anti-PPAR gamma antibody [EPR18516] (ab178860)

PPAR gamma Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-PPAR gamma antibody

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized K562 (Human chronic myelogenous leukemia cell line from bone marrow) cells labeling PPAR gamma with ab178860 at 1/250 dilution, followed by Goat anti-rabbit IgG (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution (green). Confocal image showing nuclear and weak cytoplasmic staining on K562 cell line.
The nuclear counter stain is DAPI (blue). Tubulin is detected with ab195889 (Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594)) at 1/200 dilution (red).

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat anti-rabbit IgG (Alexa Fluor® 488) (ab150077) at 1/1000 dilution.



Western blot - Anti-PPAR gamma antibody [EPR18516] (ab178860)

PPAR gamma Western blot staining using rabbit Anti-PPAR gamma antibody

Blocking/Dilution buffer: 5% NFDM/TBST.
All lanes:
Western blot - Anti-PPAR gamma antibody [EPR18516] (ab178860) at 1/1000 dilution

Lane 1:
Human adipose tissue lysate at 20 µg

Lane 2:
Human ovary lysate at 20 µg

Lane 3:
Human placenta lysate at 20 µg

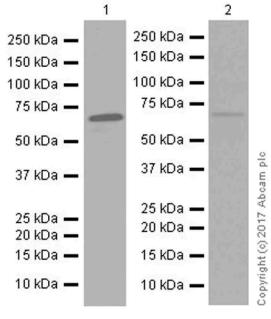
Secondary

All lanes:
Goat Anti-Rabbit IgG Peroxidase Conjugate, specific to the non-reduced form of IgG at 1/20000 dilution

Predicted band size: 57 kDa

Observed band size: 58 kDa

Exposure time: 3min



Western blot - Anti-PPAR gamma antibody [EPR18516] (ab178860)

Blocking/Dilution buffer: 5% NFDM/TBST.
Exposure times: Lane 1: 10 seconds; Lane 2: 3 seconds.

All lanes:
Western blot - Anti-PPAR gamma antibody [EPR18516] (ab178860) at 1/1000 dilution

Lane 1:
K562 (Human chronic myelogenous leukemia cell line from bone marrow) whole cell lysate at 10 µg

Lane 2:
HeLa (Human epithelial cell line from cervix adenocarcinoma) whole cell lysate at 10 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Predicted band size: 57 kDa

Observed band size: 58 kDa

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