abcam

ab316981

Anti-PPAR gamma antibody [RM1091]

Recombinant | RabMAb | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Multiclonal
Immunogens	The exact immunogen used to generate this antibody is proprietary information.
Clone number	RM1091
Purification technique	Affinity purification Protein A
Specificity	Unsuitable for mouse IP.
Concentration	0.519 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Tested

Species	Recombinant fragment - Human
Dilution info	1/1000
Notes	-

Species	Human
Dilution info	1/1000 - 1/5000
Notes	-

Species	Mouse
Dilution info	1/1000 - 1/5000
Notes	-

Species	Rat
Dilution info	1/1000
Notes	-

IP

Tested

Species	Human
Dilution info	1/30
Notes	-

Expected

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

Not recommended

Species	Mouse, Recombinant fragment - Human
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/50
Notes	-

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Not recommended

Species	Recombinant fragment - Human
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Mouse, Rat, Human, Recombinant fragment - Human
Dilution info	-
Notes	-

ICC/IF

Not recommended

Species	Mouse, Human, Rat, Recombinant fragment - Human
Dilution info	-
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	Blue Ice
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 are recombinant multiclonals?
Recombinant multiclonals are a mixture of recombinant antibodies co-expressed from a library of heavy and light chains. They offer several advantages including:

- The sensitivity of polyclonal antibodies by recognising multiple epitopes
- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

View our range of recombinant multiclonal antibodies.

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.

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.

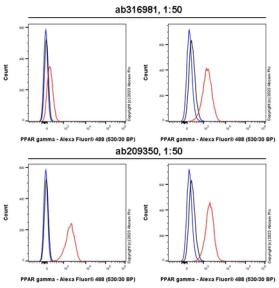
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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.

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7 product images

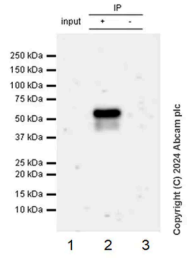


Flow Cytometry (Intracellular) - Anti-PPAR gamma antibody [RM1091] (ab316981)

Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized PC-3 (human prostate adenocarcinoma epithelial cell) (Right) / Jurkat(human T cell leukemia T lymphocyte from peripheral blood) (Left) cells labelling PPAR gamma with ab316981 at 1/50 dilution (1ug)/Red compared with a Rabbit monoclonal IgG (ab172730) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue).

Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/5000 dilution was used as the secondary antibody.

Negative control: Jurkat (PMID: 7787419).
Anti-PPAR gamma antibody (ab316981) is specific to human species, while Anti-PPAR gamma antibody (ab209350) is non-specific.



Immunoprecipitation - Anti-PPAR gamma antibody [RM1091] (ab316981)

PPAR gamma was immunoprecipitated from 0.35 mg PC-3 (human prostate adenocarcinoma epithelial cell) whole cell lysate with ab316981 at 1/30 dilution (2ug in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab316981 at 1/1000 dilution. VeriBlot for IP secondary antibody(HRP)(ab131366) was used at 1/5000 dilution.

Lane 1: PC-3 (human prostate adenocarcinoma epithelial cell) whole cell lysate
Lane 2: ab316981 IP in PC-3 (human prostate adenocarcinoma epithelial cell) whole cell lysate
Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab316981 in PC-3 whole cell lysate

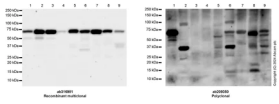
All lanes:
Immunoprecipitation - Anti-PPAR gamma antibody [RM1091] (ab316981) at 1/30 dilution

All lanes:
PC-3 (human prostate adenocarcinoma epithelial cell) whole cell lysate

Secondary

All lanes:
Immunoprecipitation - VeriBlot for IP Detection Reagent (HRP) (ab131366) at 1/5000 dilution

Exposure time: 180s



Western blot - Anti-PPAR gamma antibody [RM1091] (ab316981)

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

Anti-PPAR gamma antibody (ab316981) staining at 1/1000 dilution is specific to human, mouse and rat species. Anti-PPAR gamma antibody (ab209350) at 1/1000 dilution is bandy than ab316981.

The expression profile observed is consistent with what has been described in the literature (PMID: 9065481).

The bands beneath the target band (53kDa) are expected to be degraded target fragments.

All lanes:
Western blot - Anti-PPAR gamma antibody [RM1091] (ab316981) at 1/1000 dilution

Lane 1:
Human fat tissue lysate at 20 µg

Lane 2:
Mouse brown fat tissue lysate at 20 µg

Lane 3:
Mouse ovary tissue lysate at 20 µg

Lane 4:
Mouse colon cancer tissue lysate at 20 µg

Lane 5:
Mouse skeletal muscle tissue lysate at 20 µg

Lane 6:
Rat brown fat tissue lysate at 20 µg

Lane 7:
Rat ovary tissue lysate at 20 µg

Lane 8:
Rat colon tissue lysate at 20 µg

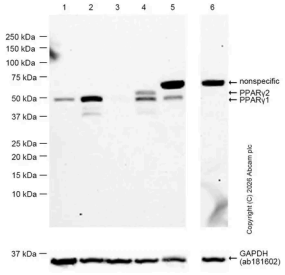
Lane 9:
Rat skeletal muscle tissue lysate at 20 µg

Secondary

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

Observed band size: 53 kDa, 58 kDa

Exposure time: 180s



Western blot - Anti-PPAR gamma antibody [RM1091] (ab316981)

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

Blocking and diluting buffer and concentration: 5% NFDM/TBST.
In Western blot, Anti-GAPDH antibody [EPR16891] - Loading Control (ab181602) staining at 1/1000,000 dilution.

Low/negative sample: liver (PMID: 16552476)

All lanes:
Western blot - Anti-PPAR gamma antibody [RM1091] (ab316981) at 1/5000 dilution

Lane 1:
HDLM-2 (human Hodgkin lymphoma) whole cell lysate at 20 µg

Lane 2:
PC-3 (human prostate adenocarcinoma epithelial cell) whole cell lysate at 20 µg

Lane 3:
Untreated 3T3-L1 (mouse embryonic fibroblast) whole cell lysate at 20 µg

Lane 4:
3T3-L1 differentiation for 6 days whole cell lysate at 20 µg

Lane 5:

Mouse brown fat tissue lysate at 20 µg

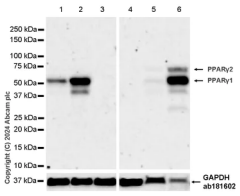
Lane 6:
Mouse liver tissue lysate at 20 µg

Secondary

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

Observed band size: 53 kDa, 58 kDa, 36 kDa

Exposure time: 180s



Western blot - Anti-PPAR gamma antibody [RM1091] (ab316981)

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

Negative control: MOLT-4 and Jurkat (PMID: 7787419).

The expression of PPARG is upregulated in response to TPA treatment (PMID: 9568716/PMID: 19850645).

The bands beneath the target band (53kDa) are expected to be degraded target fragments.

In Western blot, Anti-GAPDH antibody [EPR16891] - Loading Control (ab181602) staining at 1/200000 dilution.

All lanes:
Western blot - Anti-PPAR gamma antibody [RM1091] (ab316981) at 1/1000 dilution

Lane 1:
HDLM-2 (human Hodgkin lymphoma cell) whole cell lysate at 20 µg

Lane 2:
PC-3 (human prostate adenocarcinoma epithelial cell) whole cell lysate at 20 µg

Lanes 3 - 4:
Jurkat (human T cell leukemia T lymphocyte from peripheral blood) whole cell lysate at 20 µg

Lane 5:
Untreated THP-1 (human monocytic leukemia monocyte) whole cell lysate at 20 µg

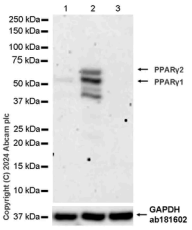
Lane 6:
THP-1 treated with 80nM TPA for 24 hours, whole cell lysate at 20 µg

Secondary

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

Observed band size: 53 kDa, 58 kDa, 36 kDa

Exposure time: 180s



Western blot - Anti-PPAR gamma antibody [RM1091] (ab316981)

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

Negative control: NIH/3T3 (PMID:12023027).

The expression of PPARG is upregulated in response to 3T3-L1 differentiation for 6 days treatment (PMID: 28759152).

The bands beneath the target band (53kDa) are expected to be degraded target fragments.

In Western blot, Anti-GAPDH antibody [EPR16891] - Loading Control (ab181602) staining at 1/200000 dilution.

All lanes:
Western blot - Anti-PPAR gamma antibody [RM1091] (ab316981) at 1/1000 dilution

Lane 1:
Untreated 3T3-L1 (mouse embryonic fibroblast) whole cell lysate at 20 µg

Lane 2:
3T3-L1 differentiation for 6 days whole cell lysate at 20 µg

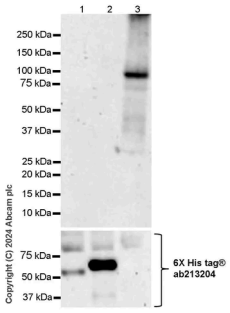
Lane 3:
NIH/3T3 at 20 µg

Secondary

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

Observed band size: 53 kDa, 58 kDa, 36 kDa

Exposure time: 180s



Western blot - Anti-PPAR gamma antibody [RM1091] (ab316981)

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

In Western blot, Anti-6X His tag® antibody [EPR20547] - ChIP Grade (ab213204) staining at 1/5000 dilution.

All lanes:
Western blot - Anti-PPAR gamma antibody [RM1091] (ab316981) at 1/1000 dilution

Lane 1:
His-tagged PPAR delta recombinant protein at 10 ng

Lane 2:
His-tagged PPAR alpha recombinant protein at 10 ng

Lane 3:
His-GST-tagged PPAR gamma recombinant protein at 10 ng

Secondary

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

Developed using the ECL technique.

Observed band size: 85 kDa

Exposure time: 180s

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