

## Rabbit PPAR-gamma Polyclonal Antibody | anti-PPARG antibody

PPAR-gamma Antibody

| CATALOG # | HOST   | REACTIVITY        | APPLICATIONS                                                                       |
|-----------|--------|-------------------|------------------------------------------------------------------------------------|
| AAA322300 | Rabbit | Human, Mouse, Rat | ELISA, Immunocytochemistry, Immunofluorescence, Immunohistochemistry, Western Blot |

### PRODUCT SYNONYMS

PPAR-gamma; Polyclonal Antibody; PPAR-gamma Antibody; C1MT1; GLM1; NR1C3; Nuclear receptor subfamily 1 group C member 3; OTTHUMP00000185032; OTTHUMP00000185036; Peroxisome proliferator activated nuclear receptor gamma variant 1; Peroxisome proliferator activated receptor gamma 1; Peroxisome Proliferator Activated Receptor gamma; Peroxisome proliferator-activated receptor gamma; PPAR gamma; PPARG; PPARG\_HUMAN; PPARG1; PPARG2; PPARGgamma; anti-PPARG antibody

### PRODUCT SPECIFICATIONS

|                                                 |                                                                                                                                       |
|-------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| Host                                            | Rabbit                                                                                                                                |
| Reactivity                                      | Human, Mouse, Rat                                                                                                                     |
| Clonality                                       | Polyclonal                                                                                                                            |
| Isotype                                         | IgG                                                                                                                                   |
| Specificity                                     | PPAR-gamma antibody detects endogenous levels of total PPAR-gamma                                                                     |
| Purity/Purification                             | The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.                                         |
| Form/Format                                     | Liquid<br>Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.                                         |
| Concentration                                   | 1mg/ml (varies by lot)                                                                                                                |
| Sequence Length                                 | 477                                                                                                                                   |
| Applicable Applications for anti-PPARG antibody | ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), IHC (Immunohistochemistry), WB (Western Blot)                              |
| Immunogen                                       | A synthesized peptide derived from human PPAR-gamma                                                                                   |
| Subcellular Location                            | Nucleus.                                                                                                                              |
| Tissue Specificity                              | Highest expression in adipose tissue. Lower in skeletal muscle, spleen, heart and liver. Also detectable in placenta, lung and ovary. |
| Predicted Cross Reactivity                      | <b>Pig, Bovine, Horse, Sheep, Rabbit, Dog</b>                                                                                         |
| Similarity                                      | Pig (92%), Bovine (92%), Horse (100%), Sheep (92%), Rabbit (100%), Dog (100%)                                                         |
| Conjugation                                     | Unconjugated                                                                                                                          |
| Preparation and Storage                         | Store at -20 degree C. Stable for 12 months from date of receipt.                                                                     |

IMAGES



IHC (Immunohistochemisry)

AAA322300 at 1/100 staining Mouse spleen tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



IF (Immunofluorescence)

AAA322300 staining Hela by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) Ab, diluted at 1/600, was used as the secondary antibody.



WB (Western Blot)

Western blot analysis of PPAR-gamma expression in HuvEc whole cell lysates, The lane on the left is treated with the antigen-specific peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-PPARG antibody

Description: The protein encoded by this gene is a member of the peroxisome proliferator-activated receptor (PPAR) subfamily of nuclear receptors. PPARs form heterodimers with retinoid X receptors (RXRs) and these heterodimers regulate transcription of various genes. Three subtypes of PPARs are known: PPAR-alpha, PPAR-delta, and PPAR-gamma.

Function: Nuclear receptor that binds peroxisome proliferators such as hypolipidemic drugs and fatty acids. Once activated by a ligand, the nuclear receptor binds to DNA specific PPAR response elements (PPRE) and modulates the transcription of its target genes, such as acyl-CoA oxidase. It therefore controls the peroxisomal beta-oxidation pathway of fatty acids. Key regulator of adipocyte differentiation and glucose homeostasis. ARF6 acts as a key regulator of the tissue-specific adipocyte P2 (aP2) enhancer. Acts as a critical regulator of gut homeostasis by suppressing NF-kappa-B-mediated proinflammatory responses. Plays a role in the regulation of cardiovascular circadian rhythms by regulating the transcription of ARNTL/BMAL1 in the blood vessels (By similarity).

Subunit Structure: Interacts with FOXO1 (acetylated form) (By similarity). Heterodimer with other nuclear receptors, such as RXRA. The heterodimer with the retinoic acid receptor RXRA is called adipocyte-specific transcription factor ARF6. Interacts with NCOA6 coactivator, leading to a strong increase in transcription of target genes. Interacts with coactivator PPARBP, leading to a mild increase in transcription of target genes. Interacts with NOCA7 in a ligand-inducible manner. Interacts with NCOA1 and NCOA2 LXXLL motifs. Interacts with ASXL1, ASXL2, DNTTIP2, FAM120B, MAP2K1/MEK1, NR0B2, PDPK1, PRDM16, PRMT2 and TGFB111. Interacts (when activated by agonist) with PPP5C. Interacts with HELZ2 and THRAP3; the interaction stimulates the transcriptional activity of PPARG. Interacts with PER2, the interaction is ligand dependent and blocks PPARG recruitment to target promoters. Interacts with NOCT. Interacts with ACTN4. Interacts (when in the liganded conformation) with GPS2 (By similarity).

Post-translational Modifications: O-GlcNAcylation at Thr-84 reduces transcriptional activity in adipocytes. Phosphorylated in basal conditions and dephosphorylated when treated with the ligand. May be dephosphorylated by PPP5C. The phosphorylated form may be inactive and dephosphorylation at Ser-112 induces adipogenic activity (By similarity).

Similarity: Belongs to the nuclear hormone receptor family. NR1 subfamily.

References

Song T, Zhou Y, Peng J, Tao YX, Yang Y, Xu T, Peng J, Ren J, Xiang Q, Wei H; Journal: Mol Cell Endocrinol. GPR120 promotes adipogenesis through intracellular calcium and extracellular signal-regulated kinase 1/2 signal pathway. Hu X, Luo P, Peng X, Song T, Zhou Y, Wei H, Peng J, Jiang S; Journal: Gen Comp Endocrinol. Molecular cloning, expression pattern analysis of porcine Rb1 gene and its regulatory roles during primary dedifferentiated fat cells adipogenic differentiation.

NCBI AND UNIPROT INFORMATION

|                  |             |
|------------------|-------------|
| NCBI GI #        | 116284368   |
| NCBI GeneID      | 5468        |
| NCBI Accession # | NP_005028.4 |

|                                  |                                                                                                |
|----------------------------------|------------------------------------------------------------------------------------------------|
| NCBI GenBank Nucleotide #        | NM_005037.5                                                                                    |
| UniProt Accession #              | P37231; O00684; O00710; O14515; Q0QJH8; Q15178; Q15179; Q15180; Q15832; Q86U60; A8K3G6; B5BUA1 |
| Molecular Weight                 | Observed: 57 kDa<br>Predicted: 58 kDa                                                          |
| NCBI Official Full Name          | peroxisome proliferator-activated receptor gamma isoform 1                                     |
| NCBI Official Synonym Full Names | peroxisome proliferator activated receptor gamma                                               |
| NCBI Official Symbol             | PPARG                                                                                          |
| NCBI Official Synonym Symbols    | GLM1; CIMT1; NR1C3; PPARG1; PPARG2; PPARGgamma                                                 |
| NCBI Protein Information         | peroxisome proliferator-activated receptor gamma                                               |
| UniProt Protein Name             | Peroxisome proliferator-activated receptor gamma                                               |
| UniProt Gene Name                | <b>PPARG</b>                                                                                   |
| UniProt Synonym Gene Names       | NR1C3; PPAR-gamma                                                                              |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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