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Anti-PPAR gamma Picoband Antibody

Catalog # ABO12843

Product Information

Application	WB
Primary Accession	P37231
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Peroxisome proliferator-activated receptor gamma(PPARG) detection. Tested with WB in Human;Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	5468
Other Names	Peroxisome proliferator-activated receptor gamma, PPAR-gamma, Nuclear receptor subfamily 1 group C member 3, PPARG, NR1C3
Calculated MW	57620
Application Details	Western blot, 0.1-0.5 □g/ml, Human, Mouse, Rat
Subcellular Localization	Nucleus. Cytoplasm. Redistributed from the nucleus to the cytosol through a MAP2K1/MEK1-dependent manner. CCRN4L/NOC enhances its nuclear translocation.
Tissue Specificity	Highest expression in adipose tissue. Lower in skeletal muscle, spleen, heart and liver. Also detectable in placenta, lung and ovary. .
Source	Eukaryota
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Immunogen	A synthetic peptide corresponding to a sequence in the middle region of human PPAR gamma (207-248aa AIRFGRMPQAEKEKLLAEISSDIDQLNPESADLRALAKHLYD), identical to the related mouse and rat sequences.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins.
Storage	At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also

be aliquotted and stored frozen at -20˚C for a longer time. Avoid repeated freezing and thawing.

Protein Information

Name	PPARG
Synonyms	NR1C3
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).
Cellular Location	Nucleus. Cytoplasm Note=Redistributed from the nucleus to the cytosol through a MAP2K1/MEK1-dependent manner (PubMed:17101779). NOCT enhances its nuclear translocation (By similarity). {ECO:0000250|UniProtKB:P37238, ECO:0000269|PubMed:17101779}
Tissue Location	Highest expression in adipose tissue. Lower in skeletal muscle, spleen, heart and liver. Also detectable in placenta, lung and ovary.

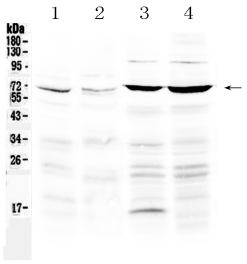
Background

The peroxisome proliferator-activated receptors (PPARs) are a group of three nuclear receptor isoforms, PPAR gamma, PPAR alpha, and PPAR delta, encoded by different genes. PPARs are ligand-regulated transcription factors that control gene expression by binding to specific response elements (PPREs) within promoters. PPAR gamma is a transcription factor that has a pivotal role in adipocyte differentiation and expression of adipocyte-specific genes. The PPAR gamma1 and gamma2 isoforms result from alternative splicing and have ligand-dependent and -independent activation domains. PPAR gamma is a member of a family of nuclear receptors/ligand-dependent transcription factors, which bind to hormone response elements on target gene promoters. PPAR gamma is abundantly expressed in normal lung tissues, especially in endothelial cells, but that its expression is reduced or absent in the angiogenic plexiform lesions of pulmonary hypertensive lungs and in the vascular lesions of a rat model of severe pulmonary hypertension. And it is concluded that fluid shear stress decreases the expression of PPARgamma in endothelial cells and that loss of PPARgamma expression characterizes an abnormal, proliferating, apoptosis-resistant endothelial cell phenotype.

Images

Figure 1. Western blot analysis of PPAR gamma using

anti-PPAR gamma antibody (ABO12843).



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