Recombinant Human PPARG, Ligand Binding Domain, GST-tagged

Cat. No. PPARG-1091H **Lot. No.** (See product label)

SPECIFICATION

Species	Human
Source	E.coli
Description	Recombinant GST- PPARγ-LBD is isolated from an E. coli strain that carries the coding sequence of the human PPARγ-LBD under the control of a T7 promoter.There is evidence that a group of closely related nuclear receptors, called Peroxisome Proliferator- activated Receptors (PPARs), may be involved in chronic diseases such as diabetes, obesity, atherosclerosis and cancer. The PPARs were first cloned as the nuclear receptors that mediate the effects of synthetic compounds called peroxisome proliferators on gene transcription. It soon became clear that eicosanoids and fatty acids can also regulate gene transcription through PPARs. They bind a specific element in the promoter region of target genes only as a heterodimer with the receptor for 9-cis retinoic acid, RXR (Retinoid X Receptor). Binding of the ligand of either receptor can activate the complex, but binding of both ligands simultaneously is more potent. Three PPAR isotypes have been identified:α,β (also called NUC1) and γ. PPARα is expressed most in brown adipose tissue and liver, then kidney, heart and skeletal muscle. PPARγ is mainly expressed in adipose tissue, and to a lesser extent in colon, the immune system and the retina. PPARβ is found in many tissues but the highest expression is in the gut, kidney and heart. PPARγ influences the storage of fatty acids in the adipose tissue. With the C/EBP transcription factors, PPARγ is part of the adipocyte differentiation program that induces the maturation of pre-adipocytes into fat cells. Most of the PPARγ target genes in adipose tissue are directly implicated

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	in lipogenic pathways, including lipoprotein lipase (LPL), adipocyte fatty acid binding protein (A-FABP or AP2), acyl-CoA synthase and fatty acid transport protein (FATP). In addition, PPARγ is a direct target gene of the transcription factor sterol response element binding protein 1 (SREBP1) emphasizing the cooperative and additive functions between these two types of receptor.
Form	Liquid. Supplied in 20 mM Tris-HCl pH 8.0, 20% glycerol, 100 mM KCl, 0.2 mM EDTA and 1 mM DTT.
Purity	> 95% by SDS-PAGE.
Application	PPARγ-LBD can be applied in DNA and protein-protein interaction assays.
Usage	For in vitro use only.
Storage	Quality guaranteed for 12 months store at -80°C. Avoid freeze / thaw cycles.

GENE INFORMATION

Gene Name	PPARG peroxisome proliferator-activated receptor gamma [Homo sapiens]
Synonyms	PPARG; peroxisome proliferator-activated receptor gamma; GLM1; CIMT1; NR1C3; PPARG1; PPARG2; PPARgamma; Peroxisome proliferator-activated receptor gamma; Nuclear receptor subfamily 1 group C member 3; peroxisome proliferative activated receptor, gamma; peroxisome proliferative activated receptor gamma; peroxisome proliferator-activated receptor gamma 1; OTTHUMP00000185030; OTTHUMP00000185033; OTTHUMP00000185037
Gene ID	5468
mRNA Refseq	NM_005037

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Protein Refseq	NP_005028
MIM	601487
UniProt ID	P37231
Chromosome Location	3p25
Pathway	Huntington"s disease; PPAR signaling pathway; Pathways in cancer
Function	arachidonic acid binding; drug binding; metal ion binding; prostaglandin receptor activity; prostaglandin receptor activity; protein heterodimerization activity; retinoid X receptor binding; sequence-specific DNA binding; steroid hormone receptor activity; transcription activator activity; transcription activator binding; transcription activator binding; transcription factor activity; transcription repressor activity; zinc ion binding
PDB rendering based on 1fm6.	

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