

Active Recombinant Human Peroxisome Proliferator-activated Receptor Delta

Cat. No. PPARD-1087H **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Species Human

Source E.coli

Description

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 δ) and γ . PPAR α is expressed most in brown adipose tissue and liver, then kidney, heart and skeletal muscle. PPAR is mainly expressed in adipose tissue, and to a lesser extent in colon, the immune system and the retina. PPAR β is found in many tissues but the highest expression is in the gut, kidney and heart. PPAR β has received little attention, probably because of the lack of a connection with important clinical manifestations. However, recently PPAR β has been linked to colon cancer, among other functions. PPAR regulates the expression of acyl-CoA synthetase 2 in

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the brain, linking PPAR β to basic lipid metabolism. Moreover, it probably participates in embryo implantation and decidualization. Recombinant PPAR β is isolated from an E. coli strain that carries the coding sequence of the human PPAR β under the control of a T7 promoter.

Form	Liquid. Supplied in 20 mM Tris-HCl pH 8.0, 100 Mm KCl, 0.2 mM EDTA, 1 mM DTT and 20% glycerol.
Purity	> 95% by SDS-PAGE.
Activity	20 ng are sufficient for a gel-mobility shift assay and 100 ng are sufficient for a protein-protein interaction assay.
Application	PPAR β has been applied in DNA and protein-protein interactions assays.
Usage	For in vitro use only.
Storage	Quality guaranteed for 12 months store at -80°C. Avoid freeze / thaw cycles.

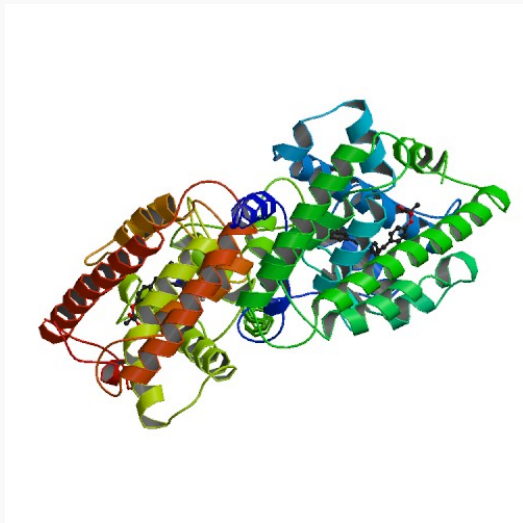
GENE INFORMATION

Gene Name	PPARD peroxisome proliferator-activated receptor delta [Homo sapiens]
Synonyms	PPARD; peroxisome proliferator-activated receptor delta; FAAR; NUC1; NUC1; NR1C2; NUC1; PPARG; MGC3931; PPAR-beta; peroxisome proliferative activated receptor, delta; OTTHUMP00000016256; OTTHUMP00000016257; nuclear hormone receptor 1; PPAR-delta; Nuclear hormone receptor 1; Nuclear receptor subfamily 1 group C member 2
Gene ID	5467

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mRNA Refseq	NM_006238
Protein Refseq	NP_006229
MIM	600409
UniProt ID	Q03181
Chromosome Location	6p21.2
Pathway	Acute myeloid leukemia; PPAR signaling pathway; Pathways in cancer; Wnt signaling pathway
Function	NF-kappaB binding; drug binding; linoleic acid binding; metal ion binding; protein binding; sequence-specific DNA binding; steroid hormone receptor activity; transcription activator activity; transcription factor activity; transcription repressor activity; zinc ion binding
PDB rendering based on 1gwx.	

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