

Recombinant Human PPARA, His-tagged

Cat. No. PPARA-2740H Lot. No. (See product label)

SPECIFICATION

Product Overview Recombinant Human PPARgamma (PPARg, nuclear receptor) cloned from human cDNA, is expressed in *E. coli*. The nuclear receptor consists of the ligand binding domain of human PPARg. The protein has a N-terminal His-tag and a thrombin cleavage site (the protein must be cleaved to co-crystallization trials with the ligands).

Species Human

Source E.coli

ProteinLength 170-468 a.a.

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 NUC1) and γ .

Purity > 98% by SDS-PAGE. The enzyme was observed as a single band migrating at a

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molecular weight of 32 kDa.

Usage

Biological test, microcalorimetry experiments, co-crystallization test.

Storage

-80°C. The enzyme is stable at -80°C >6 months. It is recommended that thawing and dilution of the enzyme be done within a short time before the start of the assay. After initial defrost, aliquot

GENE INFORMATION

Gene Name

PPARA peroxisome proliferator-activated receptor alpha [Homo sapiens]

Synonyms

PPARA; peroxisome proliferator-activated receptor alpha; PPAR; NR1C1; hPPAR; MGC2237; MGC2452; PPARalpha; peroxisome proliferative activated receptor, alpha; OTTHUMP00000197740; OTTHUMP00000197741; PPAR-alpha; Nuclear receptor subfamily 1 group C member 1

Gene ID

5465

mRNA Refseq

NM_001001928

Protein Refseq

NP_001001928

MIM

170998

UniProt ID

Q07869

Chromosome Location

22q12-q13.1

Pathway

Adipocytokine signaling pathway; PAR signaling pathway; Metabolism of lipids and

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lipoproteins

Function

drug binding; ligand-regulated transcription factor activity; lipid binding; metal ion binding; protein domain specific binding; sequence-specific DNA binding; steroid hormone receptor activity; transcription activator activity; transcription factor activity; zinc ion binding

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