PPARB
Recombinant Human Peroxisome Proliferator-activated Receptor beta His

Catalog No.	CSI13918	**Quantity:**	10 µg

Alternate Names: FAAR, MGC3931, NR1C2, NUC1, NUCI, NUCII, PPAR-beta, PPARB, nuclear hormone receptor 1

Description: The His-tag recombinant protein is purified by affinity chromatography in combination with FPLC columns.

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: alpha, beta (also called delta) and gamma. PPARalpha is expressed most in brown adipose tissue and liver, then kidney, heart and skeletal muscle. PPARgamma is mainly expressed in adipose tissue, and to a lesser extent in colon, the immune system and the retina. PPARbeta is found in many tissues but the highest expression is in the gut, kidney and heart. PPARbeta has received little attention, probably because of the lack of a connection with important clinical manifestations. However, recently PPARbeta has been linked to colon cancer, among other functions. PPAR regulates the expression of acyl-CoA synthetase 2 in the brain, linking PPARbeta to basic lipid metabolism. Moreover, it probably participates in embryo implantation and decidualization.

Recombinant PPAR is isolated from an *E. coli* strain that carries the coding sequence of the human PPARbeta under the control of a T7 promoter.

Source: *E. coli*

Molecular Weight: 52 kDa

Formulation: 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.

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Applications: PPARbeta has been applied in DNA and protein-protein interactions assays.

Storage & Stability: Stable for 1 year in working aliquots at -80°C. **Avoid repeated freeze-thaw cycles.**

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