

## PPAR gamma Protein, Human (C-His)

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| Cat. No.:         | HY-P700275           |
| Synonyms:         | PPAR- $\gamma$ -LBD  |
| Species:          | Human                |
| Source:           | E. coli              |
| Accession:        | P37231 (D238-D503)   |
| Gene ID:          | 5468                 |
| Molecular Weight: | Approximately 30 kDa |

### PROPERTIES

|                                |  |
|--------------------------------|--|
| <b>AA Sequence</b>             | <p>DLRALAKHLY    DSYIKSFPLT    KAKARAILTG    KTTDKSPFVI</p> <p>YDMNSLMMGE    DKIKFKHITP    LQEQSKEVAI    RIFQGCQFRS</p> <p>VEAVQEITEY    AKSIPGFVNL    DLNDQVTLK    YGVHEIITYTM</p> <p>LASLMNKDGV    LISEGQGFMT    REFLKSLRKP    FGDFMEPKFE</p> <p>FAVKFNALEL    DDSDLAIFIA    VIILSGDRPG    LLNVKPIEDI</p> <p>QDNLLQALEL    QLKLNHPES    QLFAKLLQKM    TDLRQIVTEH</p> <p>VQLLQVIKKT    ETDMSLHPLL    QEIYKD</p> |
| <b>Biological Activity</b>     | Data is not available.   |
| <b>Appearance</b>              | Solution.  |
| <b>Formulation</b>             | Supplied as a 0.2 $\mu$ m filtered solution of sterile 50mM Tris, 300mM NaCl, 500 mM arginine, pH 8.0, 10% Glycerol.   |
| <b>Endotoxin Level</b>         | <1 EU/ $\mu$ g, determined by LAL method.  |
| <b>Reconstitution</b>          | N/A.   |
| <b>Storage &amp; Stability</b> | Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.   |
| <b>Shipping</b>                | Shipping with dry ice  |

### DESCRIPTION

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| <b>Background</b> | PPAR gamma Protein, a nuclear receptor, binds to peroxisome proliferators such as hypolipidemic drugs and fatty acids. Upon ligand activation, the nuclear receptor interacts with specific PPAR response elements (PPRE) on DNA, modulating the transcription of target genes like acyl-CoA oxidase and thereby controlling the peroxisomal beta-oxidation pathway of fatty acids. It plays a pivotal role as a key regulator in adipocyte differentiation and glucose homeostasis. Additionally, PPAR |
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gamma acts as a critical regulator of gut homeostasis by suppressing NF-kappa-B-mediated pro-inflammatory responses. In the context of cardiovascular circadian rhythms, it regulates the transcription of BMAL1 in blood vessels. Furthermore, in response to microbial infection, particularly treatment with M.tuberculosis or its lipoprotein LpqH, PPAR gamma modulates phosphorylation of MAPK p38 and IL-6 production, suggesting its involvement in immune responses during microbial challenges.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: [tech@MedChemExpress.com](mailto:tech@MedChemExpress.com)

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA