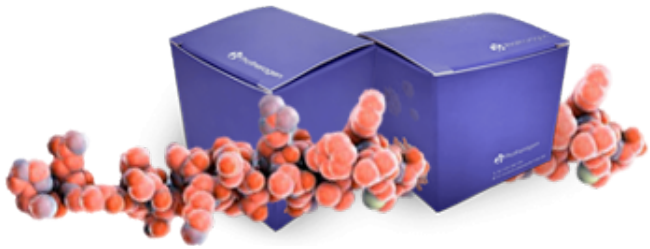
Protheragen Obesity



Mouse peroxisome proliferator-activated receptor gamma (PPARγ) ELISA kit (0.156-10 ng/mL)

Cat. No.:	0126WXX-1513
Assay Type:	Quantitative sandwich ELISA
Target Species:	Mouse
Assay Target:	PPARγ
Size:	48T; 96T

This product is for research use only and is not intended for diagnostic use.

Product Overview

Description	Mouse peroxisome proliferator-activated receptor gamma (PPARγ) ELISA kit (0.156- 10 ng/mL) is an ELISA-based *in vitro* research tool designed specifically for the quantitative detection of PPARγ in mouse samples with a range of 0.156-1 0 ng/mL and a minimum detectable dose (sensitivity) of 0.066 ng/mL. The kit is h ighly sensitive and easy to use.
Assay Principle	The ELISA analytical biochemical technique is based on PPARγ antibody-PPARγ anti gen interactions (immunosorbency) and an HRP colorimetric detection system to de tect PPARγ antigen targets in samples.

Address: 101-4 Colin Dr, Holbrook, NY 11741, USA
Phone: 1-631-506-1393
info@obesityscientific.com

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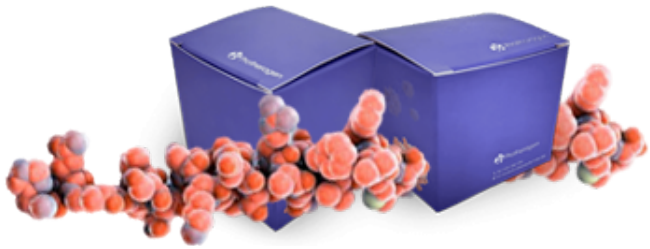

Background	PPAR-gamma (Peroxisome Proliferator-Activated Receptor Gamma), a prominent membe r of the nuclear hormone receptor superfamily located at chromosomal position 3p 25, functions as a master ligand-dependent transcription factor essential for ad ipogenesis, lipid homeostasis, and glucose metabolism. Preferentially expressed in adipocytes, vascular smooth muscle cells, and macrophages, this DNA-binding n uclear receptor operates as a heterodimer with the retinoid X receptor and inter acts with coactivators such as NCOA6 to significantly enhance the transcription of target genes. Its biological activity, which is modulated by MAP kinase-media ted phosphorylation and insulin stimuli, governs critical processes including wh ite and brown fat cell differentiation, long-chain fatty acid transport, and the regulation of systemic insulin sensitivity. Beyond its primary metabolic roles, PPAR-gamma serves as a receptor for fatty acids and hypolipidemic drugs, influe ncing diverse physiological pathways ranging from the negative regulation of inf lammation and smooth muscle cell proliferation to the orchestration of circadian rhythms and blood pressure. Consequently, dysregulation or genetic variation in PPAR-gamma is fundamentally linked to the pathogenesis of obesity, non-insulin- dependent diabetes mellitus, and familial partial lipodystrophy, underscoring it s pivotal role as a central hub in metabolic health and disease.
Synonyms	PPAR-G; PPARG1; PPARG2; NR1C3; Glitazone receptor; Nuclear receptor subfamily 1 group C member 3; PPARg; Peroxisome proliferator activated receptor gamma; PPAR-γ; Peroxisome proliferator-activated receptor γ
Formula Weight	54,512 Da
Applications	Mouse peroxisome proliferator-activated receptor gamma (PPARγ) ELISA kit (0.156- 10 ng/mL) is used to quantify PPARγ in serum, plasma, tissue homogenates, and ce ll lysates, cell culture supernatants, and other biological fluids of mouse, pro viding data to support research in a wide range of areas, including metabolic pa thway, endocrinology, cardiovascular biology, developmental science, bone metabo lism, obesity, and others.
Research Area	Metabolic pathway; Endocrinology; Cardiovascular biology; Developmental science; Bone metabolism; Obesity

Specification

Sample Type	Serum; Plasma; Tissue homogenates; Cell lysates; Cell culture supernatants; Othe r biological fluids
Detection Range	0.156-10 ng/mL
Sensitivity	0.066 ng/mL
Precision (Intra-assay)	CV<10%
Precision (Inter-assay)	CV<12%
Cross-reactivity	No significant cross-reactivity or interference was observed.
Storage	Store at 4°C (TMB substrate; wash buffer; stop solution) and -20°C (others).

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