



Porcine peroxisome proliferator-activated receptor α (PPAR α) ELISA kit (62.5-2000 pg/mL)

Cat. No.:	0126WXX-1497
Assay Type:	Quantitative sandwich ELISA
Target Species:	Porcine
Assay Target:	PPAR α
Size:	48T; 96T

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

Product Overview

Description

Porcine peroxisome proliferator-activated receptor α (PPAR α) ELISA kit (62.5-2000 pg/mL) is an ELISA-based *in vitro* research tool designed specifically for the quantitative detection of PPAR α in porcine samples with a range of 62.5-2000 pg/mL and a minimum detectable dose (sensitivity) of 10 pg/mL. The kit is highly sensitive and easy to use.

Assay Principle

The ELISA analytical biochemical technique is based on PPAR α antibody-PPAR α antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect PPAR α antigen targets in samples.



Background

PPAR-alpha, a member of the NR1 nuclear hormone receptor subfamily located at chromosomal position 22q13.31, serves as a master ligand-activated transcription factor and a cornerstone regulator of lipid homeostasis in obesity research. Primarily localized within the nucleus, its transactivation activity—requiring heterodimerization with RXRA and being antagonized by NR2C2—is triggered by various endogenous ligands such as 1-palmitoyl-2-oleoyl-sn-glycerol-3-phosphocholine (16:0/18:1-GPC), satiety-regulating lipids like oleylethanolamide, and exogenous peroxisome proliferators. Beyond its fundamental role in activating the peroxisomal beta-oxidation pathway through genes such as ACOX1 and P450, PPAR-alpha orchestrates a complex physiological network including fatty acid transport, lipoprotein metabolism, and the negative regulation of appetite and glycolysis. Its multifaceted molecular functions—ranging from zinc ion binding to steroid hormone-mediated signaling—integrate critical biological processes such as insulin stimulus response, gluconeogenesis, and circadian rhythm regulation, making it an essential target for understanding and intervening in metabolic disorders and chronic obesity.

Synonyms

Peroxisome proliferator activated receptor alpha; NR1C1; PPAR-A; HPPAR; Nuclear receptor subfamily 1 group C member 1; PPARa; PPARA; PPAR-alpha

Formula Weight

52,225 Da

Applications

Porcine peroxisome proliferator-activated receptor α (PPAR α) ELISA kit (62.5-2000 pg/mL) is used to quantify PPAR α in undiluted original porcine body fluids, tissue homogenates, secretions, and feces samples of porcine, providing data to support research in a wide range of areas, including signal transduction, developmental science, obesity, and others.

Research Area

Signal transduction; Developmental science; Obesity

Specification

Sample Type	Undiluted original porcine body fluids; Tissue homogenates; Secretions; Feces samples
Detection Range	62.5-2000 pg/mL
Sensitivity	10 pg/mL
Precision (Intra-assay)	CV<15%
Precision (Inter-assay)	CV<15%
Cross-reactivity	No significant cross-reactivity or interference was observed.
Storage	Store at 2-8°C.