



Rat phosphoenolpyruvate carboxykinase 1; soluble (PCK1) ELISA kit (0.312-20 ng/mL; 0.163 ng/mL)

Cat. No.:	0126WXX-1241
Assay Type:	Quantitative sandwich ELISA
Target Species:	Rat
Assay Target:	PCK1
Size:	48T; 96T

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

Product Overview

Description	Rat phosphoenolpyruvate carboxykinase 1; soluble (PCK1) ELISA kit (0.312-20 ng/mL; 0.163 ng/mL) is an ELISA-based <i>in vitro</i> research tool designed specifically for the quantitative detection of PCK1 in rat samples with a range of 0.312-20 ng/mL and a minimum detectable dose (sensitivity) of 0.163 ng/mL. The kit is highly sensitive and easy to use.
Assay Principle	The ELISA analytical biochemical technique is based on PCK1 antibody-PCK1 antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect PCK1 antigen targets in samples.
Background	Phosphoenolpyruvate carboxykinase 1 (PCK1) is a cytosolic enzyme that catalyzes the rate-limiting step of gluconeogenesis, converting oxaloacetate to phosphoenolpyruvate, thereby regulating glucose production from lactate and other TCA cycle intermediates. PCK1 plays a central role in maintaining glucose homeostasis and coordinating carbohydrate and lipid metabolism. Dysregulation of PCK1 activity can impair energy balance and contribute to abnormal fat accumulation, linking it to obesity and metabolic disorders.
Synonyms	PEPCK1; PEPCKC; Cytosolic phosphoenolpyruvate carboxykinase; Phosphoenolpyruvate carboxykinase; cytosolic [GTP]
Formula Weight	69,416 Da

**Applications**

Rat phosphoenolpyruvate carboxykinase 1, soluble (PCK1) ELISA kit (0.312-20 ng/mL, 0.163 ng/mL) is used to quantify PCK1 in rat samples, providing data to support research in a wide range of areas, including enzyme and kinase, metabolic pathway, endocrinology, obesity, and others.

Research Area

Enzyme & Kinase; Metabolic pathway; Endocrinology; Obesity

Specification

Sample Type	Rat samples
Detection Range	0.312-20 ng/mL
Sensitivity	0.163 ng/mL
Precision (Intra-assay)	CV≤4.8%
Precision (Inter-assay)	CV≤8.5%
Cross-reactivity	No significant cross-reactivity or interference was observed.
Recovery	1.03
Storage	Store at -20°C.