



Porcine adiponectin receptor 1 (ADIPOR1) ELISA kit

Cat. No.:	OB0525WXX-239
Assay Type:	Quantitative ELISA
Target Species:	Porcine
Assay Target:	ADIPOR1
Size:	48T; 96T

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

Product Overview

Description

Porcine adiponectin receptor 1 (ADIPOR1) ELISA kit is a ready-to-use ELISA kit for analyzing porcine ADIPOR1 levels with a detection range of 1.0-25 ng/mL and a sensitivity of 0.1 ng/mL.

Assay Principle

The kit is based on a competitive enzyme immunoassay technique using an anti-ADIPOR1 monoclonal antibody and an ADIPOR1-HRP conjugate. The assay sample and buffer are incubated with the ADIPOR1-HRP Conjugate on a pre-coated plate for one hour. At the end of the incubation period, the samples are decanted, and the wells are washed 5 times. The wells are then incubated with HRP enzyme substrate. The products of the enzyme-substrate reaction form a blue color complex. Finally, the reaction is stopped by the addition of a stop solution, which turns the solution yellow. The color intensity is measured spectrophotometrically at 450 nm on a microplate reader. The color intensity is inversely proportional to the concentration of ADIPOR1 because ADIPOR1 in the sample competes with the ADIPOR1-HRP conjugate for the binding site of the anti-ADIPOR1 antibody. Since the number of binding sites is limited, as more sites are occupied by ADIPOR1 in the sample, fewer sites remain to bind to the ADIPOR1-HRP conjugate. A standard curve is plotted between color intensity (O.D.) and standard concentration. The concentration of ADIPOR1 in each sample is derived from this standard curve.

**Background**

ADIPOR1 is a receptor for adiponectin, a hormone secreted by adipocytes that regulates fatty acid catabolism and blood glucose levels. It has been shown to activate the AMPK signaling pathway, which plays an important role in the regulation of glucose and lipid metabolism as well as inflammation and oxidative stress *in vivo*. ADIPOR1 is an attractive target for anti-obesity research.

Synonyms

AdipoR1; Adiponectin receptor type 1

Formula Weight

42,616 Da

Applications

Porcine adiponectin receptor 1 (ADIPOR1) ELISA kit is designed for the *in vitro* quantitative analysis of ADIPOR1 levels in porcine serum, plasma, cell culture supernatants, body fluid, and tissue homogenate samples.

Research Area

Lipid metabolism; Signaling pathways; Obesity

Specification

Sample Type

Serum; Plasma; Cell culture supernatants; Body fluid; Tissue homogenate

Detection Range

1.0-25 ng/mL

Sensitivity

0.1 ng/mL

Cross-reactivity

No significant cross-reactivity or interference was observed.

Storage

Store at 2-8°C.