



Mouse acetyl-CoA carboxylase 2 (ACACB) ELISA kit (1.0 ng/mL)

Cat. No.:	OB0525WXX-030
Assay Type:	Quantitative competitive ELISA
Target Species:	Mouse
Assay Target:	ACACB
Size:	48T; 96T

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

Product Overview

Description

Mouse acetyl-CoA carboxylase 2 (ACACB) ELISA kit (1.0 ng/mL) is a ready-to-use ELISA kit for analyzing mouse ACACB levels with a sensitivity of 1.0 ng/mL. This kit has high sensitivity and excellent specificity.

Assay Principle

The kit employs a competitive enzyme immunoassay technique using a polyclonal anti-ACACB-IgA antibody and an ACACB-IgA-HRP conjugate. The assay sample and buffer are incubated in a pre-coated plate with the ACACB-IgA-HRP conjugate for one hour. At the end of the incubation period, the wells are decanted and washed five times. The wells are then incubated with HRP enzyme substrate. The product of the enzyme reaction with the substrate forms a blue colored complex. Finally, the reaction is stopped by adding 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 ACACB-IgA because the ACACB-IgA in the sample competes with the ACACB-IgA-HRP conjugate for the binding site of the anti-ACACB-IgA antibody. Since there are a limited number of binding sites, as more sites are occupied by ACACB-IgA in the sample, there are fewer sites left to bind the ACACB-IgA-HRP conjugate. A standard curve is plotted between color intensity (O.D.) and standard concentration. The ACACB-IgA concentration in each sample is derived from this standard curve.



Background

ACACB (also called ACC2) is a subunit of ACC. ACC is responsible for catalyzing the carboxylation of acetyl-CoA to malonyl-CoA, which is the rate-limiting step in fatty acid synthesis. ACC2 has been found to play an important role in controlling fatty acid oxidation and is a potential target for the treatment of obesity and related diseases.

Synonyms

ACC2; Acetyl-coenzyme A carboxylase 2; ACC-beta or Acetyl-CoA carboxylase beta; EC 6.3.4.14

Formula Weight

268,166 Da

Applications

Mouse acetyl-CoA carboxylase 2 (ACACB) ELISA kit (1.0 ng/mL) is designed for the *in vitro* quantitative analysis of ACACB levels in mouse serum, plasma, cell culture supernatants, body fluid, and tissue homogenate samples.

Research Area

Metabolites; Fatty acid biosynthesis; Obesity

Specification

Sample Type

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

Sensitivity

1.0 ng/mL

Cross-reactivity

No significant cross-reactivity or interference was observed.

Storage

Store at 2-8°C.