



## Bovine adipose triglyceride lipase (ATGL) ELISA kit

<b>Cat. No.:</b>	OB0625WXX-200
<b>Assay Type:</b>	Quantitative competitive ELISA
<b>Target Species:</b>	Bovine
<b>Assay Target:</b>	ATGL
<b>Size:</b>	48T; 96T

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

### Product Overview

#### Description

Bovine adipose triglyceride lipase (ATGL) ELISA kit is an ELISA-based *in vitro* research tool designed specifically for the quantitative detection of ATGL in bovine with a specificity of 1.0 ng/mL.

#### Assay Principle

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



**Background**

ATGL is a rate-limiting lipase in mammals, fruit flies, and yeast. It has very high substrate specificity for triacylglycerol (triglyceride) and catalyzes the first reaction of lipolysis, in which triacylglycerol is hydrolyzed into diacylglycerol (diglyceride). It is a key enzyme in maintaining the balance between lipid mobilization and lipid storage and affects various functions.

**Synonyms**

PNPLA2; Patatin-like phospholipase domain containing 2; Patatin like domain 2, triacylglycerol lipase; Triglyceride hydrolase

**Formula Weight**

19,875 Da

**Applications**

Bovine adipose triglyceride lipase (ATGL) ELISA kit is an important tool for the quantitative detection of ATGL in various biological samples (serum, plasma, cell culture supernatants, body fluid, tissue homogenate) of bovine.

**Research Area**

Signal transduction; Lipid metabolism; Obesity research

## 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.