



Monkey cathepsin S (CTSS) ELISA kit (0.5-10 ng/mL)

Cat. No.:	OB0625WXX-280
Assay Type:	Quantitative sandwich ELISA
Target Species:	Monkey
Assay Target:	CTSS
Size:	48T; 96T

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

Product Overview

Description

Monkey cathepsin S (CTSS) ELISA kit (0.5-10 ng/mL) is an ELISA-based *in vitro* research tool designed specifically for the quantitative detection of CTSS in monkey with a range of 0.5-10 ng/mL and a specificity of 0.1 ng/mL.

Assay Principle

The assay sample and buffer are incubated with the CTSS-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 concentration of CTSS because the CTSS and CTSS-HRP conjugates in the sample compete for the binding sites of the anti-CTSS antibody. Since the number of binding sites is limited, as more sites are occupied by CTSS in the sample, fewer sites remain to bind the CTSS-HRP conjugate. A standard curve is plotted between color intensity (O.D.) and standard concentration. The concentration of CTSS in each sample is derived from this standard curve.

**Background**

CTSS is an important member of the cysteine protease family. As a potent mammalian elastase, it can degrade various extracellular components, including fibronectin, laminin, elastin, and collagen. CTSS is abnormally expressed in various disease states, such as obesity and atherosclerosis, which makes it a biomarker and a potential therapeutic target. Studies have found that CTSS inhibitors may be a possible strategy for treating obesity.

Synonyms

CTS-S; EC 3.4.22.27

EC NO.

3.4.22.27

Formula Weight

31,626 Da

Applications

Monkey cathepsin S (CTSS) ELISA kit (0.5-10 ng/mL) is used to quantify CTSS in serum, plasma, cell culture supernatants, body fluid, tissue homogenate samples of monkey, providing data to support a wide range of studies.

Research Area

Obesity research; Immune response; Signaling pathway; Protein degradation

Specification

Sample Type

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

Detection Range

0.5-10 ng/mL

Sensitivity

0.1 ng/mL

Cross-reactivity

No significant cross-reactivity or interference was observed.

Storage

Store at 2-8°C.