



## Mouse cathepsin S (CTSS) ELISA kit (62.5-4000 pg/mL)

<b>Cat. No.:</b>	OB0625WXX-533
<b>Assay Type:</b>	Quantitative sandwich ELISA
<b>Target Species:</b>	Mouse
<b>Assay Target:</b>	CTSS
<b>Size:</b>	48T; 96T

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

### Product Overview

#### Description

Mouse cathepsin S (CTSS) ELISA kit (62.5-4000 pg/mL) is an ELISA-based *in vitro* research tool designed specifically for the quantitative detection of CTSS in mouse with a range of 62.5-4000 pg/mL and a specificity of 25.2 pg/mL.

#### Assay Principle

The microtiter plate provided in this kit is pre-coated with an antibody specific for CTSS. Standards or samples are then added to the appropriate microtiter plate wells along with a biotin-conjugated antibody preparation specific for CTSS. Avidin conjugated to horseradish peroxidase (HRP) is then added to each microplate well and incubated. Upon addition of TMB substrate solution, only wells containing CTSS, biotin-conjugated antibody and enzyme-conjugated avidin will show a color change. The enzyme-substrate reaction is terminated by the addition of sulfuric acid solution, and the color change is measured spectrophotometrically at  $450 \text{ nm} \pm 10 \text{ nm}$ . The OD of the sample is then compared to a standard curve to determine the concentration of CTSS in the sample.

#### 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



<b>EC NO.</b>	3.4.22.27
<b>Formula Weight</b>	38,475 Da
<b>Applications</b>	Mouse cathepsin S (CTSS) ELISA kit (62.5-4000 pg/mL) is used to quantify CTSS in serum, plasma, tissue homogenates, and other biological fluid samples of mouse, providing data to support a wide range of studies.
<b>Research Area</b>	Obesity research; Immune response; Signaling pathway; Protein degradation

## Specification

<b>Sample Type</b>	Serum; Plasma; Tissue homogenates; Other biological fluids
<b>Detection Range</b>	62.5-4000 pg/mL
<b>Sensitivity</b>	25.2 pg/mL
<b>Precision (Intra-assay)</b>	CV<10%
<b>Precision (Inter-assay)</b>	CV<12%
<b>Cross-reactivity</b>	No significant cross-reactivity or interference was observed.
<b>Storage</b>	Store at 4°C (TMB substrate, wash buffer, stop solution) and -20°C (other reagents).