



Human Mast Cell Chymase ELISA Kit

Product Code	CSB-E13757h
Abbreviation	CMA1
Target Name	chymase 1, mast cell
Uniprot No.	P23946
Alias	CYH, MCT1, MGC119890, MGC119891, chymase, chymase 1 preproprotein transcript E chymase 1 preproprotein transcript I chymase, heart chymase, mast cell mast cell protease I
Product Type	ELISA Kit
Immunogen Species	Homo sapiens (Human)
Sample Types	serum, cell culture supernates, tissue homogenates
Detection Range	0.156 ng/mL-10 ng/mL
Sensitivity	0.039 ng/mL
Assay Time	1-5h
Sample Volume	50-100ul
Detection Wavelength	450 nm
Lead Time	3-5 working days after you place the order, and it takes another 3-5 days for delivery via DHL or FedEx.
Research Area	Cardiovascular
Quality Control	A microplate reader capable of measuring absorbance at 450 nm, with the correction wavelength set at 540 nm or 570 nm. An incubator can provide stable incubation conditions up to 37°C±5°C. Centrifuge Vortex Squirt bottle, manifold dispenser, or automated microplate washer Absorbent paper for blotting the microtiter plate 50-300ul multi-channel micropipette Pipette tips Single-channel micropipette with different ranges 100ml and 500ml graduated cylinders Deionized or distilled water Timer Test tubes for dilution
Gene Names	CMA1
Tag Info	quantitative
Protein Description	Sandwich
Component	A micro ELISA plate --- The 96-well plate has been pre-coated with an anti-human mast cell Chymase antibody. This dismountable microplate can be



divided into 12 x 8 strip plates.

Two vials lyophilized standard ---Dilute a bottle of the standard at dilution series, read the OD values, and then draw a standard curve.

One vial Biotin-labeled mast cell Chymase antibody (100 x concentrate) (120 µl/bottle) ---Act as the detection antibody.

One vial HRP-avidin (100 x concentrate) (120 µl/bottle) ---Bind to the detection antibody and react with the TMB substrate to make the solution chromogenic.

One vial Biotin-antibodyDiluent (15 ml/bottle) ---Dilute the Biotin-antibody.

One vial HRP-avidin Diluent (15 ml/bottle) ---Dilute the HRP-avidin solution.

One vial Sample Diluent (50 ml/bottle)---Dilute the sample to an appropriate concentration.

One vial Wash Buffer (25 x concentrate) (20 ml/bottle) ---Wash away unbound or free substances.

One vial TMB Substrate (10 ml/bottle) ---Act as the chromogenic agent. TMB interacts with HRP, eliciting the solution turns blue.

One vial Stop Solution (10 ml/bottle) ---Stop the color reaction. The solution color immediately turns from blue to yellow.

Four Adhesive Strips (For 96 wells) --- Cover the microplate when incubation. An instruction manual

Description

This Human CMA1 ELISA Kit was designed for the quantitative measurement of Human CMA1 protein in serum, cell culture supernates, tissue homogenates. It is a Sandwich ELISA kit, its detection range is 0.156 ng/mL-10 ng/mL and the sensitivity is 0.039 ng/mL .

Target Details

This gene product is a chymotryptic serine proteinase that belongs to the peptidase family S1. It is expressed in mast cells and thought to function in the degradation of the extracellular matrix, the regulation of submucosal gland secretion, and the generation of vasoactive peptides. In the heart and blood vessels, this protein, rather than angiotensin converting enzyme, is largely responsible for converting angiotensin I to the vasoactive peptide angiotensin II. Angiotensin II has been implicated in blood pressure control and in the pathogenesis of hypertension, cardiac hypertrophy, and heart failure. Thus, this gene product is a target for cardiovascular disease therapies. This gene maps to 14q11.2 in a cluster of genes encoding other proteases.

Product Precision

Intra-assay Precision (Precision within an assay): CV%<8%

Three samples of known concentration were tested twenty times on one plate to assess.

Inter-assay Precision (Precision between assays): CV%<10%

Three samples of known concentration were tested in twenty assays to assess.

Linearity

To assess the linearity of the assay, samples were spiked with high concentrations of human mast cell chymase (CMA1) in various matrices and diluted with the Sample Diluent to produce samples with values within the dynamic range of the assay.

?	Sample	Serum(n=4)
1:1	Average %	98
	Range %	94-103



1:2	Average %	90
	Range %	84-95
1:4	Average %	99
	Range %	94-104
1:8	Average %	89
	Range %	85-94

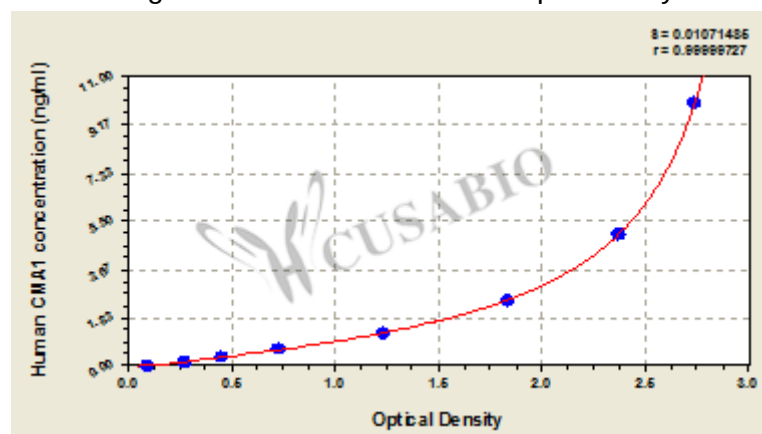
Recovery

The recovery of human mast cell chymase(CMA1) spiked to levels throughout the range of the assay in various matrices was evaluated. Samples were diluted prior to assay as directed in the Sample Preparation section.

Sample Type	Average % Recovery	Range
Serum (n=5)	90	85-95
EDTA plasma (n=4)	101	95-107

Typical

These standard curves are provided for demonstration only. A standard curve should be generated for each set of samples assayed.



ng/ml	OD1	OD2	Average	Corrected
10	2.735	2.789	2.762	2.656
5	2.397	2.385	2.391	2.285
2.5	1.832	1.869	1.851	1.745
1.25	1.256	1.241	1.249	1.143
0.625	0.725	0.756	0.741	0.635
0.312	0.453	0.468	0.461	0.355
0.156	0.289	0.281	0.285	0.179
0	0.105	0.107	0.106	?

Msds

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