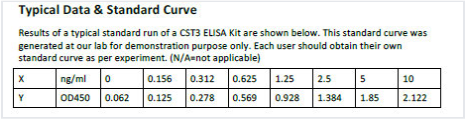
Cystatin C (CST3) ELISA Kit for Human

PRODUCT OVERVIEW

Product Name	Cystatin C (CST3), ELISA Kit
Full Product Name	Human Cystatin C ELISA Kit
Product Gene Name	CST3 elisa kit
Product Synonym Names	Cystatin C/CST3/Cys-C/Cystatin 3/ARMD11/Post-Gamma-Globulin
Species Reactivity	Human
Assay Type	Sandwich ELISA, Double Antibody
Samples	Serum, Plasma, Cell Culture Supernatant, cell or tissue lysate, Other liquid samples
Detection Range	0.313-20ng/ml
Sensitivity	0.188ng/ml
Specificity	This assay has high sensitivity and excellent specificity for detection of CST3 . No significant cross-reactivity or interference between CST3 and analogues was observed.
Preparation and Storage	Store entire kit at 2-8C for short-term. For longer-term, please store the microplate & standard at -20C, while the remaining reagents can be stored at 2-8C
Inter-assay Precision	Inter-assay Precision (Precision between assays): 3 samples with low, middle and high level CST3 were tested on 3 different plates, 8 replicates in each plate. CV (%) = SD/meanX100. Inter-Assay: CV<10%
Intra-assay Precision	Intra-assay Precision (Precision within an assay): 3 samples with low, middle and high level CST3 were tested 20 times on one plate, respectively. Intra-Assay: CV<8%
Molecular Weight	15,799 Da
OMIM	105150
3D Structure	ModBase 3D Structure for P01034
ISO Certification	Manufactured in an ISO 13485:2003 and EN ISO 13485:2012 Certified Laboratory.
Related Product Information for CST3 elisa kit	MBS761747 is a ready-to-use microwell, strip plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Cystatin C (CST3) ELISA Kit target analytes in biological samples. The concentration gradients of the kit standards or positive controls render a theoretical kit detection range in biological research samples containing CST3. The ELISA analytical biochemical technique of the MBS761747 kit is based on CST3 antibody-CST3 antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect CST3 antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, CST3. Appropriate sample types may include undiluted body fluids and/or tissue homogenates, secretions. Quality control assays assessing reproducibility identified the intra-assay CV (%) and inter-assay CV(%).
Other Notes	Small volumes of CST3 elisa kit vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.



Typical Data & Standard Curve

Results of a typical standard run of a CST3 ELISA Kit are shown below. This standard curve was generated at our lab for demonstration purpose only. Each user should obtain their own standard curve as per experiment. (N/A=not applicable)

X	ng/ml	0	0.156	0.312	0.625	1.25	2.5	5	10
Y	OD450	0.062	0.125	0.278	0.569	0.928	1.384	1.85	2.122

Typical Testing Data/Standard Curve (for reference only) of CST3 elisa kit

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CST3. It may not necessarily be applicable to this product.

NCBI GI #	755738
NCBI GeneID	1471
NCBI Accession #	CAA29096.1
UniProt Primary Accession #	P01034
UniProt Secondary Accession #	Q6FGW9; B2R5J9; D3DW42
UniProt Related Accession #	P01034
NCBI Official Full Name	cystatin C
NCBI Official Synonym Full Names	cystatin C
NCBI Official Symbol	CST3
NCBI Official Synonym Symbols	ARMD11; HEL-S-2
UniProt Protein Name	Cystatin-C
UniProt Synonym Protein Names	Cystatin-3; Gamma-trace; Neuroendocrine basic polypeptide; Post-gamma-globulin
Protein Family	Cystatin
UniProt Gene Name	CST3
UniProt Entry Name	CYTC_HUMAN
NCBI Protein Information	cystatin-C
NCBI Summary for CST3	The cystatin superfamily encompasses proteins that contain multiple cystatin-like sequences. Some of the members are active cysteine protease inhibitors, while others have lost or perhaps never acquired this inhibitory activity. There are three inhibitory families in the superfamily, including the type 1 cystatins (stefins), type 2 cystatins and the kininogens. The type 2 cystatin proteins are a class of cysteine proteinase inhibitors found in a variety of human fluids and secretions, where they appear to provide protective functions. The cystatin locus on chromosome 20 contains the majority of the type 2 cystatin genes and pseudogenes. This gene is located in the cystatin locus and encodes the most abundant extracellular inhibitor of cysteine proteases, which is found in high concentrations in biological fluids and is expressed in virtually all organs of the body. A mutation in this gene has been associated with amyloid angiopathy. Expression of this protein in vascular wall smooth muscle cells is severely reduced in both atherosclerotic and aneurysmal aortic lesions, establishing its role in vascular disease. In addition, this protein has been shown to have an antimicrobial function, inhibiting the replication of herpes simplex virus. Alternative splicing results in multiple transcript variants encoding a single protein. [provided by RefSeq, Nov 2014]

UniProt Comments for CST3	CST3: As an inhibitor of cysteine proteinases, this protein is thought to serve an important physiological role as a local regulator of this enzyme activity. Defects in CST3 are the cause of amyloidosis type 6 (AMYL6); also known as hereditary cerebral hemorrhage with amyloidosis (HCHWA), cerebral amyloid angiopathy (CAA) or cerebroarterial amyloidosis Icelandic type. AMYL6 is a hereditary generalized amyloidosis due to cystatin C amyloid deposition. Cystatin C amyloid accumulates in the walls of arteries, arterioles, and sometimes capillaries and veins of the brain, and in various organs including lymphoid tissue, spleen, salivary glands, and seminal vesicles. Amyloid deposition in the cerebral vessels results in cerebral amyloid angiopathy, cerebral hemorrhage and premature stroke. Cystatin C levels in the cerebrospinal fluid are abnormally low. Genetic variations in CST3 are associated with age- related macular degeneration type 11 (ARMD11). ARMD is a multifactorial eye disease and the most common cause of irreversible vision loss in the developed world. In most patients, the disease is manifest as ophthalmoscopically visible yellowish accumulations of protein and lipid that lie beneath the retinal pigment epithelium and within an elastin-containing structure known as Bruch membrane. Belongs to the cystatin family. Protein type: Secreted, signal peptide; Secreted; Inhibitor Chromosomal Location of Human Ortholog: 20p11.21 Cellular Component: axon; basement membrane; cell soma; contractile fiber; endoplasmic reticulum; extracellular region; extracellular space; lysosome; multivesicular body; nuclear membrane; perinuclear region of cytoplasm Molecular Function: beta-amyloid binding; cysteine protease inhibitor activity; endopeptidase inhibitor activity; identical protein binding; protease binding; protein binding Biological Process: apoptosis; brain development; cell activation; cellular protein metabolic process; circadian sleep/wake cycle, REM sleep; defense response; embryo implantation; eye development; fibril organization and biogenesis; negative regulation of peptidase activity; negative regulation of proteolysis; positive regulation of cell proliferation; positive regulation of DNA replication; regulation of programmed cell death; regulation of tissue remodeling; response to axon injury; response to carbohydrate stimulus; response to drug; response to estradiol stimulus; response to hypoxia; response to nutrient levels; response to toxin; salivary gland development; Sertoli cell development Disease: Cerebral Amyloid Angiopathy, Cst3-related; Macular Degeneration, Age-related, 11
Research Articles on CST3	**1.** Elevated serum CysC in patients with acute ischemic stroke may play a protective role in ischemic injury. Under ischemic stimuli, neuronal cells, including neurons and astrocytes, may release high levels of CysC as a defensive mechanism to inhibit cysteine protease activity.
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