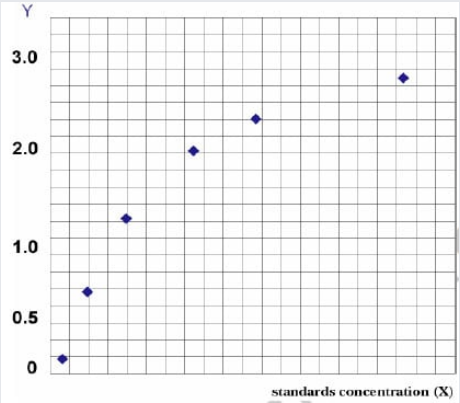
Cystatin 3 (CST3) ELISA Kit for Human

PRODUCT OVERVIEW

Product Name	Cystatin 3 (CST3), ELISA Kit
Full Product Name	Human Cystatin 3 (CST3) ELISA Kit
Product Gene Name	CST3 elisa kit
Product Synonym Names	Human Cystatin 3 ELISA Kit (CST3); Human Cystatin 3 (CST3) ELISA Kit; Cystatin 3 (CST3); Cystatin 3 ELISA Kit (CST3) (Human)
Species Reactivity	Human
Assay Type	Sandwich
Preparation and Storage	Store all reagents at 2-8 degree C
Molecular Weight	15,799 Da
Chromosome Location	Chromosome: 20; NC_000020.10 (23614294..23618574, complement). Location: 20p11.21
OMIM	105150
3D Structure	ModBase 3D Structure for P01034
Sample Preparation	We suggest pre-experimenting with neat (undiluted) samples, 1:2 or 1:4 dilutions. Please avoid diluting your samples more than 1:10 as it would exceed the dilution limit set for this kit. If the expected concentration of the target is beyond the detection range of the kit, please contact our technical support team
Product Categories/Family for CST3 elisa kit	Human ELISA Kit
ISO Certification	Manufactured in an ISO 13485:2016 Certified Laboratory.
Related Product Information for CST3 elisa kit	**Intended Uses:** This CST3 ELISA kit is intended Laboratory for research use only.The Stop Solution changes the color from blue to yellow and the intensity of the color is measured at 450 nm using a spectrophotometer. In order to measure the concentration ofCST3 in the sample, thisCST3 ELISA Kit includes a set of calibration standards. The calibration standards are assayed at the same time as the samples and allow the operator to produce a standard curve of Optical Density versusCST3 concentration. The concentration ofCST3 in the samples is then determined by comparing the O.D. of the samples to the standard curve. **Principle of the Assay:** This CST3 enzyme linked immunosorbent assay applies a technique called a quantitative sandwich immunoassay. The microtiter plate provided in this kit has been pre-coated with a monoclonal antibody specific forCST3. Standards or samples are then added to the microtiter plate wells andCST3 if present, will bind to the antibody pre-coated wells. In order to quantitatively determine the amount ofCST3 present in the sample, a standardized preparation of horseradish peroxidase (HRP)-conjugated polyclonal antibody, specific forCST3 are added to each well to "sandwich" theCST3 immobilized on the plate. The microtiter plate undergoes incubation, and then the wells are thoroughly washed to remove all unbound components. Next, A and B substrate solution is added to each well. The enzyme (HRP) and substrate are allowed to react over a short incubation period.Only those wells that containCST3 and enzyme-conjugated antibody will exhibit a change in colour. The enzyme-substrate reaction is terminated by the addition of a sulphuric acid solution and the colour change is measured spectrophotometrically at a wavelength of 450 nm.
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.

Searchable Terms for CST3 purchase	MBS727260 is a ready-to-use microwell, strip plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Cystatin 3 (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 MBS727260 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(%).



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 #	4503107
NCBI GeneID	1471
NCBI Accession #	NP_000090.1
UniProt Primary Accession #	P01034
UniProt Secondary Accession #	Q6FGW9; B2R5J9; D3DW42
UniProt Related Accession #	P01034
GenBank Nucleotide #	NM_000099.2
NCBI Official Full Name	cystatin-C
NCBI Official Synonym Full Names	cystatin C
NCBI Official Symbol	CST3
NCBI Official Synonym Symbols	ARMD11
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; cystatin 3; cystatin-3; gamma-trace; post-gamma-globulin; bA218C14.4 (cystatin C); neuroendocrine basic polypeptide

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. [provided by RefSeq, Jul 2008]
UniProt Comments for CST3	Function: As an inhibitor of cysteine proteinases, this protein is thought to serve an important physiological role as a local regulator of this enzyme activity. Subunit structure: Homodimer. Subcellular location: Secreted Ref.19. Tissue specificity: Expressed in submandibular and sublingual saliva but not in parotid saliva (at protein level). Expressed in various body fluids, such as the cerebrospinal fluid and plasma. Expressed in highest levels in the epididymis, vas deferens, brain, thymus, and ovary and the lowest in the submandibular gland. Ref.16 Ref.19 Post-translational modification: The Thr-25 variant is O-glycosylated with a core 1 or possibly core 8 glycan. The signal peptide of the O-glycosylated Thr-25 variant is cleaved between Ala-20 and Val-21. Involvement in disease: Amyloidosis 6 (AMYL6) [MIM:105150]: 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.Note: The disease is caused by mutations affecting the gene represented in this entry. Ref.3 Ref.23Age-related macular degeneration 11 (ARMD11) [MIM:611953]: A form of age-related macular degeneration, 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.Note: Disease susceptibility is associated with variations affecting the gene represented in this entry. Ref.24 Miscellaneous: Potential cerebrospinal fluid marker for the diagnosis of Creutzfeldt-Jakob disease. Sequence similarities: Belongs to the cystatin family. Mass spectrometry: Molecular mass is 13334.5829±0.0140 Da from positions 27 - 146. Determined by ESI. Ref.19
Research Articles on CST3	**1.** A glomerular filtration rate prediction model has been developed for spinal cord injury based on serum CysC, creatinine level, sex, age, height, weight, body surface area, and body mass index.
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Product Note	Select online data sheet information is drawn from bioinformatics databases, occasionally resulting in ambiguous or non-relevant product information. It is the responsibility of the customer to review, verify, and evaluate the information to make sure it matches their requirements before purchasing the kit. Our ELISA Kit assays are dynamic research tools and sometimes they may be updated and improved. If the format of this assay is important to you then please request the current manual or contact our technical support team with a presales inquiry before placing an order. We will confirm the current details of the assay. We cannot guarantee the sample manual posted online is the most current manual, it is intended to serve as an example only. Please refer to the instructions For Use provided with the assay kit for precise details.

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