Cystatin-B (CSTB/CST6/STFB) (CSTB/CST6/STFB) ELISA Kit for Human

PRODUCT OVERVIEW

Product Name	Cystatin-B (CSTB/CST6/STFB), ELISA Kit
Full Product Name	Human Cystatin-B (CSTB/CST6/STFB) ELISA Kit
Product Gene Name	CSTB/CST6/STFB elisa kit
Product Synonym Gene Name	CSTB
Product Synonym Names	CST6; EPM1; PME; STFB; CPI-B; cystatin B; liver thiol proteinase inhibitor; stefin B
Species Reactivity	Human
Assay Type	Quantitive Sandwich
Samples	Serum, Plasma, Other Biological Fluids
Specificity	This assay has high sensitivity and excellent specificity for detection of Human CSTB. No significant cross-reactivity or interference between Human CSTB and analogues was observed.
Preparation and Storage	Store at 2-8 degree C.
Molecular Weight	11,140 Da
OMIM	U46692 Genomic DNA
3D Structure	ModBase 3D Structure for P04080
Detection Wavelength	450 nm
Intra-assay Precision (Precision within an assay)	Three samples of known concentration were tested twenty times on one plate to assess intra-assay precision.
Inter-assay Precision (Precision between assays)	Three samples of known concentration were tested in forty separate assays to assess inter-assay precision.
CV (%)	= SD/meanX100
Intra-Assay	CV
Inter-Assay	CV
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for CSTB/CST6/STFB elisa kit	This assay employs a two-site sandwich ELISA to quantitate CSTB in samples. An antibody specific for CSTB has been pre-coated onto a microplate. Standards and samples are pipetted into the wells and any CSTB present is bound by the immobilized antibody. After removing any unbound substances, a biotin-conjugated antibody specific for CSTB is added to the wells. After washing, Streptavidin conjugated Horseradish Peroxidase (HRP) is added to the wells. Following a wash to remove any unbound avidin-enzyme reagent, a substrate solution is added to the wells and color develops in proportion to the amount of CSTB bound in the initial step. The color development is stopped and the intensity of the color is measured.
Other Notes	Small volumes of CSTB/CST6/STFB 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 CSTB/CST6/STFB purchase	MBS287274 is a ready-to-use microwell, strip-or-full plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Cystatin-B (CSTB/CST6/STFB) 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 CSTB/CST6/STFB. The ELISA analytical biochemical technique of the MBS287274 kit is based on CSTB/CST6/STFB antibody-CSTB/CST6/STFB antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect CSTB/CST6/STFB antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, CSTB/CST6/STFB. 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(%).

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CSTB/CST6/STFB. It may not necessarily be applicable to this product.

NCBI GI #	4503117
NCBI GeneID	1476
NCBI Accession #	NP_000091.1
UniProt Primary Accession #	P04080
UniProt Related Accession #	P04080
GenBank Nucleotide #	NM_000100.3
NCBI Official Full Name	cystatin-B
NCBI Official Synonym Full Names	cystatin B
NCBI Official Symbol	CSTB
NCBI Official Synonym Symbols	PME; ULD; CST6; EPM1; STFB; CPI-B; EPM1A
UniProt Protein Name	Cystatin-B
UniProt Synonym Protein Names	CPI-B; Liver thiol proteinase inhibitor; Stefin-B
UniProt Gene Name	CSTB
UniProt Synonym Gene Names	CST6; STFB
NCBI Protein Information	cystatin-B
NCBI Summary for CSTB/CST6/STFB	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 kininogens. This gene encodes a stefin that functions as an intracellular thiol protease inhibitor. The protein is able to form a dimer stabilized by noncovalent forces, inhibiting papain and cathepsins l, h and b. The protein is thought to play a role in protecting against the proteases leaking from lysosomes. Evidence indicates that mutations in this gene are responsible for the primary defects in patients with progressive myoclonic epilepsy (EPM1). One type of mutation responsible for EPM1 is the expansion in the promoter region of this gene of a CCCCGCCCCGCG repeat from 2-3 copies to 30-78 copies. [provided by RefSeq, Jul 2016]
UniProt Comments for CSTB/CST6/STFB	This is an intracellular thiol proteinase inhibitor. Tightly binding reversible inhibitor of cathepsins L, H and B.
Research Articles on CSTB/CST6/STFB	**1.** The results demonstrate that cystatin B interferes with the STAT-1 signaling and IFN-beta-antiviral responses perpetuating HIV in macrophage reservoirs.
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