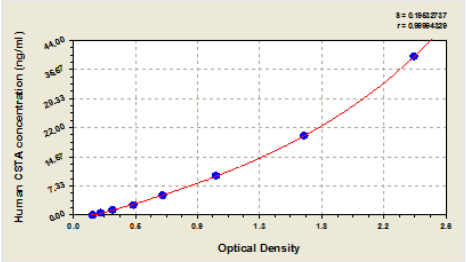
Cystatin A (Stefin A) (CSTA) ELISA Kit for Human

PRODUCT OVERVIEW

Product Name	cystatin A (stefin A) (CSTA), ELISA Kit
Full Product Name	Human Cystatin-A, CSTA/STF1/STFA ELISA Kit
Product Gene Name	CSTA elisa kit
Product Synonym Names	Human Cystatin-A (CSTA/STF1/STFA) ELISA kit; STF1; STFA; cystatin A; cystatin AS; stefin A; cystatin A (stefin A)
Species Reactivity	Human
Assay Type	Sandwich
Samples	Serum, plasma, Cell lysates
Detection Range	0.625 ng/ml-40 ng/ml
Sensitivity	0.156 ng/ml
Specificity	This assay has high sensitivity and excellent specificity for detection of Human CSTA. No significant cross-reactivity or interference between Human CSTA and analogues was observed.
Preparation and Storage	Unopened test kits should be stored at 2 to 8 degree C upon receipt. Please refer to pdf manual for further storage instructions.
Intra-assay Precision	Intra-assay Precision (Precision within an assay): CV% is less than 8% Three samples of known concentration were tested twenty times on one plate to assess. Inter-assay Precision (Precision between assays): CV% is less than 10% Three samples of known concentration were tested in twenty assays to assess.
Molecular Weight	11,006 Da
OMIM	gene 607936
3D Structure	ModBase 3D Structure for P01040
Detection Wavelength	450 nm
Sample Volume	50-100ul
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for CSTA elisa kit	**Principle of the Assay:** This assay employs the quantitative sandwich enzyme immunoassay technique. Antibody specific for CSTA/STF1/STFA has been pre-coated onto a microplate. Standards and samples are pipetted into the wells and any CSTA/STF1/STFA present is bound by the immobilized antibody. After removing any unbound substances, a biotin-conjugated antibody specific for CSTA/STF1/STFA is added to the wells. After washing, avidin 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 CSTA/STF1/STFA bound in the initial step. The color development is stopped and the intensity of the color is measured.
Other Notes	Small volumes of CSTA 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 CSTA purchase	MBS923956 is a ready-to-use microwell, strip plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the cystatin A (stefin A) (CSTA) 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 CSTA. The ELISA analytical biochemical technique of the MBS923956 kit is based on CSTA antibody-CSTA antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect CSTA antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, CSTA. 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 CSTA elisa kit

ADDITIONAL DETAILS

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

NCBI GI #	4885165
NCBI GeneID	1475
NCBI Accession #	NP_005204.1
UniProt Primary Accession #	P01040
UniProt Secondary Accession #	Q6IB90
UniProt Related Accession #	P01040
GenBank Nucleotide #	NM_005213.3
NCBI Official Full Name	cystatin-A
NCBI Official Synonym Full Names	cystatin A (stefin A)
NCBI Official Symbol	CSTA
NCBI Official Synonym Symbols	AREI; STF1; STFA
UniProt Protein Name	Cystatin-A
UniProt Synonym Protein Names	Cystatin-AS; Stefin-ACleaved into the following chain:Cystatin-A, N-terminally processed
Protein Family	Carbon starvation protein
UniProt Gene Name	CSTA
UniProt Synonym Gene Names	STF1; STFA
UniProt Entry Name	CYTA_HUMAN
NCBI Protein Information	cystatin-A; cystatin AS
NCBI Summary for CSTA	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 a cysteine protease inhibitor, forming tight complexes with papain and the cathepsins B, H, and L. The protein is one of the precursor proteins of cornified cell envelope in keratinocytes and plays a role in epidermal development and maintenance. Stefins have been proposed as prognostic and diagnostic tools for cancer. [provided by RefSeq, Jul 2008]

UniProt Comments for CSTA	CSTA: This is an intracellular thiol proteinase inhibitor. Has an important role in desmosome-mediated cell-cell adhesion in the lower levels of the epidermis. Defects in CSTA are the cause of ichthyosis exfoliative autosomal recessive ichthyosis bullosa of Siemens-like (AREI). A form of congenital exfoliative ichthyosis, sharing some features with ichthyosis bullosa of Siemens and annular epidermolytic ichthyosis. AREI presents shortly after birth as dry, scaly skin over most of the body with coarse peeling of non- erythematous skin on the palms and soles, which is exacerbated by excessive moisture and minor trauma. Electron microscopy analysis of skin biopsies, reveals mostly normal-appearing upper layers of the epidermis, but prominent intercellular edema of the basal and suprabasal cell layers with aggregates of tonofilaments in the basal keratinocytes. Belongs to the cystatin family. Chromosomal Location of Human Ortholog: 3q21 Cellular Component: nucleoplasm; extracellular space; cytoplasm; cornified envelope; nucleus Molecular Function: protein binding, bridging; protease binding; cysteine protease inhibitor activity; structural molecule activity Biological Process: keratinocyte differentiation; negative regulation of proteolysis; cell-cell adhesion; negative regulation of peptidase activity; peptide cross-linking Disease: Exfoliative Ichthyosis, Autosomal Recessive, Ichthyosis Bullosa Of Siemens-like
Research Articles on CSTA	**1.** We identified a homozygous nonsense mutation (p.Lys22X) in the CSTA gene in acral peeling skin syndrome.
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