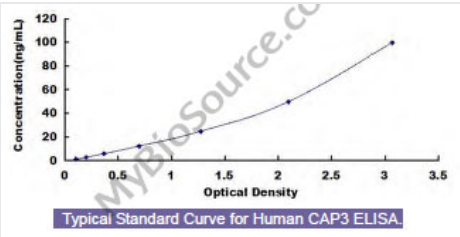
Cytoplasmic Antiproteinase 3 (CAP3) ELISA Kit for Human

PRODUCT OVERVIEW

Product Name	Cytoplasmic Antiproteinase 3 (CAP3), ELISA Kit
Full Product Name	Human Cytoplasmic Antiproteinase 3 (CAP3) ELISA Kit
Product Gene Name	CAP3 elisa kit
Product Synonym Names	SERPINB9; PI9; Serpin Peptidase Inhibitor Clade B Member 9; Peptidase inhibitor 9
Species Reactivity	Human
Assay Type	Sandwich
Samples	Serum, plasma, tissue homogenates, cell lysates and other biological fluids.
Detection Range	1.56-100ng/mL
Sensitivity	0.45ng/mL
Specificity	This assay has high sensitivity and excellent specificity for detection of CAP3. No significant cross-reactivity or interference between CAP3 and analogues was observed.
Preparation and Storage	For unopened kit, all reagents should be kept according to the labels on vials. The TMB Substrate, Wash Buffer, Stop Solution should be stored at 4 degree C. All others should be stored at -20 degree C.
Inter-assay Precision	Inter-assay Precision (Precision between assays): 3 samples with low, middle and high level CAP3 were tested on 3 different plates, 8 replicates in each plate. CV(%) = SD/meanX100. Inter-Assay: CV<12%
Intra-assay Precision	Intra-assay Precision (Precision within an assay): 3 samples with low, middle and high level CAP3 were tested 20 times on one plate, respectively. Intra-Assay: CV<10%
Molecular Weight	42,404 Da
OMIM	L40378 mRNA
3D Structure	ModBase 3D Structure for P50453
ISO Certification	Manufactured in an ISO 13485:2003 and EN ISO 13485:2012 Certified Laboratory.
Related Product Information for CAP3 elisa kit	Intended Uses: The kit is a sandwich enzyme immunoassay for in vitro quantitative measurement of CAP3 in human serum, plasma, tissue homogenates, cell lysates and other biological fluids. Principle of the Assay: The microtiter plate provided in this kit has been pre-coated with an antibody specific to CAP3. Standards or samples are then added to the appropriate microtiter plate wells with a biotin-conjugated antibody preparation specific to CAP3. Next, Avidin conjugated to Horseradish Peroxidase (HRP) is added to each microplate well and incubated. After TMB substrate solution is added, only those wells that contain CAP3, biotin-conjugated antibody and enzyme-conjugated Avidin will exhibit a change in color. The enzyme-substrate reaction is terminated by the addition of sulphuric acid solution and the color change is measured spectrophotometrically at a wavelength of 450nm +/- 10nm. The concentration of CAP3 in the samples is then determined by comparing the O.D. of the samples to the standard curve.
Other Notes	Small volumes of CAP3 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 CAP3 purchase	MBS453989 is a ready-to-use microwell, strip-or-full plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Cytoplasmic Antiproteinase 3 (CAP3) 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 CAP3. The ELISA analytical biochemical technique of the MBS453989 kit is based on CAP3 antibody-CAP3 antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect CAP3 antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, CAP3. 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 CAP3 elisa kit

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CAP3. It may not necessarily be applicable to this product.

NCBI GI #	4758906
NCBI GeneID	5272
NCBI Accession #	NP_004146.1
UniProt Primary Accession #	P50453
UniProt Secondary Accession #	Q5TD03; B2RBW3
UniProt Related Accession #	P50453
GenBank Nucleotide #	NM_004155.5
NCBI Official Full Name	serpin B9
NCBI Official Synonym Full Names	serpin family B member 9
NCBI Official Symbol	SERPINB9
NCBI Official Synonym Symbols	PI9; CAP3; PI-9; CAP-3
UniProt Protein Name	Serpin B9
UniProt Synonym Protein Names	Cytoplasmic antiproteinase 3; CAP-3; CAP3; Peptidase inhibitor 9; PI-9
Protein Family	Metallothionein-like protein
UniProt Gene Name	SERPINB9
UniProt Synonym Gene Names	PI9; CAP-3; CAP3; PI-9
NCBI Protein Information	serpin B9
NCBI Summary for CAP3	This gene encodes a member of the serine protease inhibitor family which are also known as serpins. The encoded protein belongs to a subfamily of intracellular serpins. This protein inhibits the activity of the effector molecule granzyme B. Overexpression of this protein may prevent cytotoxic T-lymphocytes from eliminating certain tumor cells. A pseudogene of this gene is found on chromosome 6. [provided by RefSeq, Mar 2012]
UniProt Comments for CAP3	Granzyme B inhibitor.
Research Articles on CAP3	**1.** Data show that oropharyngeal squamous cell carcinomas (OPSCCs) express granzyme inhibitors SERPINB1, SERPINB4 and SERPINB9 for cytotoxicity and the expression was not different between human papillomavirus (HPV)-positive and HPV-negative tumors.

Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
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