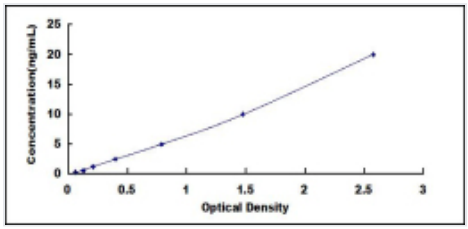
Crystallin Beta B2 (CRYbB2) ELISA Kit for Mouse

PRODUCT OVERVIEW

Product Name	Crystallin Beta B2 (CRYbB2), ELISA Kit
Full Product Name	Mouse Crystallin Beta B2 (CRYbB2) ELISA Kit
Product Gene Name	CRYbB2 elisa kit
Product Synonym Names	CCA2; CRYB2; CRYB2A; Beta-crystallin Bp
Species Reactivity	Mouse
Assay Type	Double-antibody Sandwich
Samples	Tissue homogenates, Cell lysates and other biological fluids
Detection Range	0.312-20ng/mL
Sensitivity	0.113ng/mL
Specificity	This assay has high sensitivity and excellent specificity for detection of Crystallin Beta B2 (CRYbB2). No significant cross-reactivity or interference between Crystallin Beta B2 (CRYbB2) and analogues was observed.
Preparation and Storage	The stability of kit is determined by the loss rate of activity. The loss rate of this kit is less than 5% within the expiration date under appropriate storage condition. To minimize extra influence on the performance, operation procedures and lab conditions, especially room temperature, air humidity, incubator temperature should be strictly controlled. It is also strongly suggested that the whole assay is performed by the same operator from the beginning to the end.
Molecular Weight	23,380 Da
OMIM	123620
Supply Chain Verification	Manufactured in a lab with traceable raw materials. Bulk orders can typically be prepared to the customer's specifications, please inquire.
Application	Enzyme-linked immunosorbent assay for Antigen Detection.
Intra-assay Precision (Precision within an assay)	3 samples with low, middle and high level Crystallin Beta B2 (CRYbB2) were tested 20 times on one plate, respectively.
Inter-assay Precision (Precision between assays)	3 samples with low, middle and high level Crystallin Beta B2 (CRYbB2) were tested on 3 different plates, 8 replicates in each plate.
CV(%) =	SD/meanX100
Intra-Assay	CV<10%
Inter-Assay	CV<12%
Product Categories/Family for CRYbB2 elisa kit	Immune molecule
ISO Certification	Manufactured in an ISO 9001:2015 and ISO 13485:2016 Certified Laboratory.

Related Product Information for CRYbB2 elisa kit	The test principle applied in this kit is Sandwich enzyme immunoassay. The microtiter plate provided in this kit has been pre-coated with an antibody specific to Crystallin Beta B2 (CRYbB2). Standards or samples are then added to the appropriate microtiter plate wells with a biotin-conjugated antibody specific to Crystallin Beta B2 (CRYbB2). 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 Crystallin Beta B2 (CRYbB2), 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 Crystallin Beta B2 (CRYbB2) in the samples is then determined by comparing the O.D. of the samples to the standard curve.
Other Notes	Small volumes of CRYbB2 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 CRYbB2 purchase	MBS2025162 is a ready-to-use microwell, strip plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Crystallin Beta B2 (CRYbB2) 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 CRYbB2. The ELISA analytical biochemical technique of the MBS2025162 kit is based on CRYbB2 antibody-CRYbB2 antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect CRYbB2 antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, CRYbB2. 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 CRYbB2 elisa kit

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CRYbB2. It may not necessarily be applicable to this product.

NCBI GI #	401761
NCBI GeneID	1415
NCBI Accession #	AAA16864.1
UniProt Secondary Accession #	Q9UCM8
UniProt Related Accession #	P43320
NCBI Official Full Name	crystallin beta-B2
NCBI Official Synonym Full Names	crystallin, beta B2
NCBI Official Symbol	CRYBB2
NCBI Official Synonym Symbols	CCA2; CRYB2; CRYB2A; CTRCT3; D22S665
UniProt Protein Name	Beta-crystallin B2
UniProt Synonym Protein Names	Beta-B2 crystallin; Beta-crystallin Bp
Protein Family	Beta-crystallin
UniProt Gene Name	CRYBB2
UniProt Synonym Gene Names	CRYB2; CRYB2A
UniProt Entry Name	CRBB2_HUMAN

NCBI Protein Information	beta-crystallin B2
NCBI Summary for CRYbB2	Crystallins are separated into two classes: taxon-specific, or enzyme, and ubiquitous. The latter class constitutes the major proteins of vertebrate eye lens and maintains the transparency and refractive index of the lens. Since lens central fiber cells lose their nuclei during development, these crystallins are made and then retained throughout life, making them extremely stable proteins. Mammalian lens crystallins are divided into alpha, beta, and gamma families; beta and gamma crystallins are also considered as a superfamily. Alpha and beta families are further divided into acidic and basic groups. Seven protein regions exist in crystallins: four homologous motifs, a connecting peptide, and N- and C-terminal extensions. Beta-crystallins, the most heterogeneous, differ by the presence of the C-terminal extension (present in the basic group, none in the acidic group). Beta-crystallins form aggregates of different sizes and are able to self-associate to form dimers or to form heterodimers with other beta-crystallins. This gene, a beta basic group member, is part of a gene cluster with beta-A4, beta-B1, and beta-B3. A chain-terminating mutation was found to cause type 2 cerulean cataracts. [provided by RefSeq, Jul 2008]
UniProt Comments for CRYbB2	CRYBB2: a major structural protein of the eye lens. A member of the beta/gamma-crystallin family. Defects are the cause of congenital cerulean type 2 cataract, sutural cataract with punctate and cerulean opacities, and Coppock-like cataract. Chromosomal Location of Human Ortholog: 22q11.23 Molecular Function: identical protein binding; protein homodimerization activity; structural molecule activity; structural constituent of eye lens Biological Process: camera-type eye development; visual perception; response to stimulus Disease: Cataract 3, Multiple Types
Research Articles on CRYbB2	**1.** This is the first study to analyze the association between genetic variations in the CRYBB2 gene with PCa. rs9608380, associated with Prostate cancer, is a potentially functional variant
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