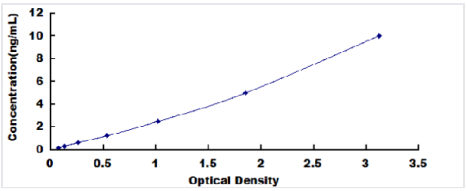
# Crystallin Alpha B (CRYaB) ELISA Kit for Human

## PRODUCT OVERVIEW

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| **Product Name** | Crystallin Alpha B (CRYaB), ELISA Kit |
| **Full Product Name** | Human Crystallin Alpha B (CRYaB) ELISA Kit |
| **Product Gene Name** | CRYaB elisa kit |
| **Product Synonym Names** | CRY-AB; CRYA-B; CRYA2; CTPP2; HSPB5; Heat shock protein beta-5; Renal carcinoma antigen NY-REN-27; Rosenthal fiber component |
| **Species Reactivity** | Human |
| **Assay Type** | Sandwich |
| **Samples** | Tissue homogenates, cell lysates and other biological fluids. |
| **Detection Range** | 0.625-40ng/mL |
| **Sensitivity** | 0.216ng/mL |
| **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. |
| **Molecular Weight** | 20,159 Da |
| **OMIM** | M28638 Genomic DNA |
| **3D Structure** | ModBase 3D Structure for P02511 |
| **Intra Assay** | CV<10% |
| **Inter Assay** | CV<12% |
| **ISO Certification** | Manufactured in an ISO 13485:2003 and EN ISO 13485:2012 Certified Laboratory. |
| **Related Product Information for CRYaB elisa kit** | MBS450637 is a ready-to-use microwell, strip-or-full plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Crystallin Alpha B (CRYaB) 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 CRYaB. The ELISA analytical biochemical technique of the MBS450637 kit is based on CRYaB antibody-CRYaB antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect CRYaB antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, CRYaB. 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(%). |
| **Other Notes** | Small volumes of CRYaB 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. |




**Typical Testing Data/Standard Curve (for reference only) of CRYaB elisa kit**

## ADDITIONAL DETAILS

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

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| **NCBI GI #** | 577019571 |
| **NCBI GeneID** | 1410 |
| **NCBI Accession #** | NP_001276736.1 |
| **UniProt Primary Accession #** | P02511 |
| **UniProt Secondary Accession #** | O43416; Q9UC37; Q9UC38; Q9UC39; Q9UC40; Q9UC41; B0YIX0 |
| **UniProt Related Accession #** | P02511 |
| **GenBank Nucleotide #** | NM_001289807.1 |
| **NCBI Official Full Name** | alpha-crystallin B chain isoform 1 |
| **NCBI Official Synonym Full Names** | crystallin alpha B |
| **NCBI Official Symbol** | CRYAB |
| **NCBI Official Synonym Symbols** | MFM2; CRYA2; CTPP2; HSPB5; CMD1II; CTRCT16; HEL-S-101 |
| **UniProt Protein Name** | Alpha-crystallin B chain |
| **UniProt Synonym Protein Names** | Alpha(B)-crystallin; Heat shock protein beta-5; HspB5; Renal carcinoma antigen NY-REN-27; Rosenthal fiber component |
| **Protein Family** | Alpha-crystallin |
| **UniProt Gene Name** | CRYAB |
| **UniProt Synonym Gene Names** | CRYA2; HSPB5; HspB5 |
| **NCBI Protein Information** | alpha-crystallin B chain |
| **NCBI Summary for CRYaB** | Mammalian lens crystallins are divided into alpha, beta, and gamma families. Alpha crystallins are composed of two gene products: alpha-A and alpha-B, for acidic and basic, respectively. Alpha crystallins can be induced by heat shock and are members of the small heat shock protein (HSP20) family. They act as molecular chaperones although they do not renature proteins and release them in the fashion of a true chaperone; instead they hold them in large soluble aggregates. Post-translational modifications decrease the ability to chaperone. These heterogeneous aggregates consist of 30-40 subunits; the alpha-A and alpha-B subunits have a 3:1 ratio, respectively. Two additional functions of alpha crystallins are an autokinase activity and participation in the intracellular architecture. The encoded protein has been identified as a moonlighting protein based on its ability to perform mechanistically distinct functions. Alpha-A and alpha-B gene products are differentially expressed; alpha-A is preferentially restricted to the lens and alpha-B is expressed widely in many tissues and organs. Elevated expression of alpha-B crystallin occurs in many neurological diseases; a missense mutation cosegregated in a family with a desmin-related myopathy. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jan 2014] |
| **UniProt Comments for CRYaB** | May contribute to the transparency and refractive index of the lens. Has chaperone-like activity, preventing aggregation of various proteins under a wide range of stress conditions. |
| **Research Articles on CRYaB** | **1.** Cryab expression was elevated in osteosarcoma tissues and cell lines, and down-regulation of Cryab in MG-63 and U-2OS cells led to a decline in the cells' aggressiveness, and reduced secretion of matrix metalloproteinase-9 in vitro, and lower metastasis potential in vivo. |
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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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