

RecomAb™

# CRYAB recombinant monoclonal antibody, clone R02-7A2

Catalog # RAB01613      Size 100 uL

## Applications



### Western Blot

Western blot analysis of Alpha B Crystallin in C6, HeLa lysates using human Alpha B Crystallin recombinant monoclonal antibody, clone R02-7A2 (Cat # RAB01613).

## Specification

<b>Product Description</b>	Rabbit recombinant monoclonal antibody raised against synthetic peptide of human Alpha B Crystallin.
<b>Antibody Species</b>	Rabbit
<b>Immunogen</b>	Original antibody is raised against a synthetic peptide corresponding to human Alpha B Crystallin.
<b>Theoretical MW (kDa)</b>	Calculated MW: 20 kD
<b>Reactivity</b>	Human
<b>Form</b>	Liquid
<b>Purification</b>	Affinity purification
<b>Isotype</b>	IgG
<b>Recommend Usage</b>	Immunofluorescence(1:50-1:200) Immunoprecipitation(1:20) Western Blot (1:500-1:1000) The optimal working dilution should be determined by the end user.

<b>Storage Buffer</b>	In 50 mM Tris-Glycine, pH 7.4 (0.15 M NaCl, 40% Glycerol, 0.01% Sodium azide and 0.05% BSA)
<b>Storage Instruction</b>	Store at 4°C for short term. For long term storage store at -20°C. Aliquot to avoid repeated freezing and thawing.
<b>Note</b>	This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

## Applications

- Western Blot

Western blot analysis of Alpha B Crystallin in C6, HeLa lysates using human Alpha B Crystallin recombinant monoclonal antibody, clone R02-7A2 (Cat # RAB01613).

- Immunocytochemistry
- Immunoprecipitation

## Gene Info — CRYAB

Entrez GeneID	<a href="#">1410</a>
Protein Accession#	<a href="#">P02511</a>
Gene Name	CRYAB
Gene Alias	CRYA2, CTPP2, HSPB5
Gene Description	crystallin, alpha B
Omim ID	<a href="#">123590 608810</a>
Gene Ontology	<a href="#">Hyperlink</a>

## Gene Summary

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. 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 (sHSP also known as the 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. 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. [provided by RefSeq]

## Other Designations

alpha crystallin B chain|heat-shock 20 kD like-protein

## Disease

- [Alzheimer disease](#)
- [Cognition](#)
- [Genetic Predisposition to Disease](#)
- [Multiple Sclerosis](#)