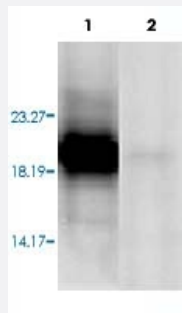


# CRYAA monoclonal antibody, clone 1H3.B8 (RPE)

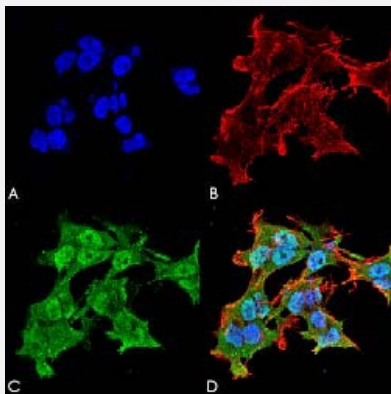
Catalog # MAB22428      Size 200 ug

## Applications



### Western Blot (Tissue lysate)

Western Blot (Tissue lysate) analysis of bovine tissue lysates. Lane 1: Alpha A Crystallin; Lane 2: Alpha B Crystallin



### Immunofluorescence

Immunofluorescence staining of SK-N-BE. (A) DAPI (blue) nuclear stain (B) Phalloidin Texas Red F-Actin stain (C) Alpha A Crystallin Antibody (D) Composite.

## Specification

<b>Product Description</b>	Mouse monoclonal antibody raised against native human CRYAA.
<b>Immunogen</b>	Native purified human CRYAA.
<b>Host</b>	Mouse
<b>Reactivity</b>	Bovine, Human, Mouse, Rat
<b>Specificity</b>	This antibody detects ~20 kDa. Does not cross-react with alpha subunit B-crystallin, beta subunit L-crystallin, beta subunit H-crystallin, gamma subunit crystallin, HSP25, HSP27 or HSP47 proteins.

Form	Liquid
Conjugation	RPE
Purification	Protein G purification
Isotype	IgG1
Recommend Usage	Immunocytochemistry (1:100) Immunofluorescence (1:100) Western Blot (1:2000) The optimal working dilution should be determined by the end user.
Storage Buffer	In PBS, pH 7.2 (50% glycerol, 0.09% sodium azide).
Storage Instruction	Store at -20°C. Aliquot to avoid repeated freezing and thawing.
Note	Application Data with Unconjugated Antibody. This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

## Applications

- Western Blot (Tissue lysate)

Western Blot (Tissue lysate) analysis of bovine tissue lysates. Lane 1: Alpha A Crystallin; Lane 2: Alpha B Crystallin

- Immunocytochemistry

- Immunofluorescence

Immunofluorescence staining of SK-N-BE. (A) DAPI (blue) nuclear stain (B) Phalloidin Texas Red F-Actin stain (C) Alpha A Crystallin Antibody (D) Composite.

## Gene Info — CRYAA

Entrez GeneID	<a href="#">1409</a>
Protein Accession#	<a href="#">P02489</a>
Gene Name	CRYAA
Gene Alias	CRYA1, HSPB4
Gene Description	crystallin, alpha A

Omim ID [123580](#)

Gene Ontology [Hyperlink](#)

### 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. Defects in this gene cause autosomal dominant congenital cataract (ADCC). [provided by RefSeq]

Other Designations crystallin, alpha-1|human alphaA-crystallin (CRYA1)

## Disease

- [Cataract](#)
- [Genetic Predisposition to Disease](#)