

# Human Crystallin alpha A/CRYAA antibody

Catalog Number: ACA0401

## PRODUCT INFORMATION

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**Catalog number**

ACA0401

**Clone No.**

c9F2

**Product type**

Monoclonal Antibody

**UnitProt No.**

P02489

**NCBI Accession No.**

NP\_000385

**Alternative Names**

Acry-1, Alpha crystallin A chain, CRYA1, CRYAA, Crystallin alpha 1, Crystallin alpha A, Heat shock protein beta 4, HSPB 4, HspB4, Zonular Central Nuclear Cataract

## PRODUCT SPECIFICATION

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**Antibody Host**

Mouse

**Reacts With**

Human

**Concentration**

1mg/ml (determined by BCA assay)

**Formulation**

Liquid in. Phosphate-Buffered Saline (pH 7.4) with 0.02% Sodium Azide, 10% glycerol

**Immunogen**

Recombinant human Crystallin alpha A (1-173aa) purified from E. coli

**Isotype**

IgG1 kappa

**Purification Note**

By protein-G affinity chromatography

**Application**

ELISA, WB, FACS

**Usage**

The antibody has been tested by ELISA, Western blot and FACS analysis to assure specificity and reactivity. Since application varies, however, each investigation should be titrated by the reagent to obtain optimal results.

# Human Crystallin alpha A/CRYAA antibody

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## Storage

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

## BACKGROUND

### Description

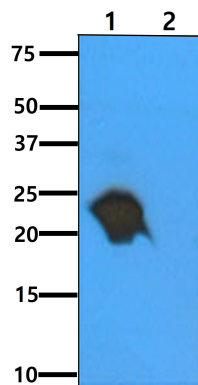
alpha-crystallins, a major protein of the ocular lens, are thought to play a role in maintaining lens transparency, which are composed of two gene products alpha-A and alpha-B, for acidic and basic, respectively. alpha-crystallins can be induced by heat shock and are members of the small heat shock protein (sHSP). They act as molecular chaperones and hold unfolded or misfolded proteins in large, water-soluble low molecular weight aggregates. These heterogeneous aggregates consist of 30-40 subunits of the alpha-A and alpha-B subunits have a 3:1 ratio, respectively. Two additional function of alpha-crystallins are an autokinase activity and the participation in the intracellular architecture.

### General References

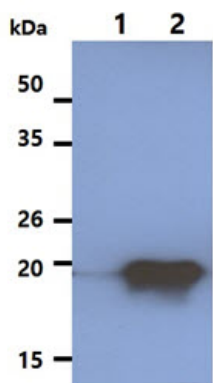
Fujii N., et al., (2003) Mol. Vis. 9: 915-22.  
Laksanalamai P., et al., (2004) Extremophiles 8: 1-11.

## DATA

### Western blot analysis (WB)



The recombinant proteins were resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human Crystallin alpha A antibody (1:1000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system. This antibody is not shown cross-activity about Crystallin alpha B.  
Lane 1.: Recombinant human Crystallin alpha A protein  
Lane 2.: Recombinant human Crystallin alpha B protein



The cell lysates (5ug) were resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human Crystallin alpha A antibody (1:3000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system.  
Lane 1.: 293T cell lysate  
Lane 2.: Crystallin alpha A Transfected 293T cell lysate

### Flow cytometry (FACS)

## Human Crystallin alpha A/CRYAA antibody

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Flow cytometry analysis of Crystallin alpha A in Balb/3T3 cells. The cell was stained with ACA0401 at 2-5ug for  $1 \times 10^6$  cells (red). A Goat anti mouse IgG (Alexa fluor 488) was used as the secondary antibody. Mouse monoclonal IgG was used as the isotype control (dark gray), cells without incubation with primary and secondary antibody was used as the negative control (light gray).

