

Human Crystallin alpha A/CRYAA antibody

Catalog Number: ACA0401

PRODUCT INFORMATION

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

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.

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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.

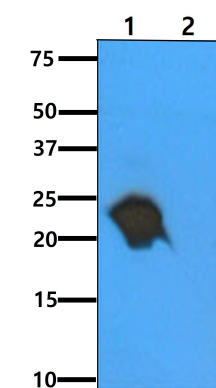
General References

Fujii N., et al., (2003) Mol. Vis. 9: 915-22.

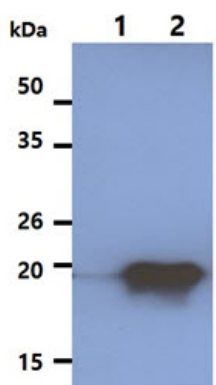
Laksanalamai P., et al., (2004) Extremophiles 8: 1-11.

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)

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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 1×10^6 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).

