# abcam

# Product datasheet

# Anti-alpha A Crystallin/CRYAA antibody ab139503

# 1 Image

Overview

Product name Anti-alpha A Crystallin/CRYAA antibody

**Description** Rabbit polyclonal to alpha A Crystallin/CRYAA

Host species Rabbit

Tested applications Suitable for: WB

Species reactivity Reacts with: Human

Predicted to work with: Mouse, Rat, Chimpanzee, Gorilla, Orangutan

Immunogen Synthetic peptide corresponding to Human alpha A Crystallin/CRYAA aa 150 to the C-terminus

(C terminal) conjugated to keyhole limpet haemocyanin.

Database link: P02489

**Positive control**This antibody gave a positive signal in Human Brain and Spinal Cord tissue lysates.

**General notes**The Life Science industry has been in the grips of a reproducibility crisis for a number of years.

Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets

your needs before purchasing.

If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be

found below, along with publications, customer reviews and Q&As

**Properties** 

Form Liquid

Storage instructions Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -

80°C. Avoid freeze / thaw cycle.

Storage buffer pH: 7.40

Preservative: 0.02% Sodium azide

Constituent: PBS

Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising

agent. If you would like information about the formulation of a specific lot, please contact our

scientific support team who will be happy to help.

**Purity** Immunogen affinity purified

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**Clonality** Polyclonal

**Isotype** IgG

#### **Applications**

#### The Abpromise guarantee

Our Abpromise quarantee covers the use of ab139503 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		Use a concentration of 1 µg/ml. Detects a band of approximately 20 kDa (predicted molecular weight: 20 kDa).

#### **Target**

**Function** May contribute to the transparency and refractive index of the lens.

Involvement in disease Defects in CRYAA are a cause of cataract autosomal dominant (ADC) [MIM:604219]. Cataract is

an opacification of the crystalline lens of the eye that frequently results in visual impairment or blindness. Opacities vary in morphology, are often confined to a portion of the lens, and may be static or progressive. In general, the more posteriorly located and dense an opacity, the greater the impact on visual function. Cataract is the most common treatable cause of visual disability in

childhood.

Sequence similarities Belongs to the small heat shock protein (HSP20) family.

Post-translational modifications

O-glycosylated; contains N-acetylglucosamine side chains.

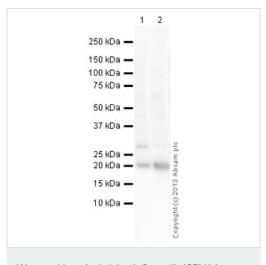
Deamidation of Asn-101 in lens occurs mostly during the first 30 years of age, followed by a small additional amount of deamidation (approximately 5%) during the next approximately 38 years, resulting in a maximum of approximately 50% deamidation during the lifetime of the individual. Phosphorylation on Ser-122 seems to be developmentally regulated. Absent in the first months of life, it appears during the first 12 years of human lifetime. The relative amount of phosphorylated

form versus unphosphorylated form does not change over the lifetime of the individual.

Cellular localization Cytoplasm. Nucleus. Translocates to the nucleus during heat shock and resides in sub-nuclear

structures known as SC35 speckles or nuclear splicing speckles.

### **Images**



Western blot - Anti-alpha A Crystallin/CRYAA antibody (ab139503)

**All lanes :** Anti-alpha A Crystallin/CRYAA antibody (ab139503) at 1  $\mu$ g/ml

Lane 1 : Brain (Human) Tissue Lysate - adult normal tissue

Lane 2 : Spinal Cord (Human) Tissue Lysate - adult normal tissue

Lysates/proteins at 10 µg per lane.

## **Secondary**

**All lanes :** Donkey Anti-Rabbit lgG H&L preadsorbed (<u>ab97081</u>) at 1/10000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 20 kDa Observed band size: 20 kDa

Additional bands at: 28 kDa (possible non-specific binding)

Exposure time: 30 seconds

This blot was produced using a 4-12% Bis-tris gel under the MES buffer system. The gel was run at 200V for 35 minutes before being transferred onto a Nitrocellulose membrane at 30V for 70 minutes. The membrane was then blocked for an hour using 5% Bovine Serum Albumin before being incubated with ab139503 overnight at 4°C. Antibody binding was detected using an anti-rabbit antibody conjugated to HRP, and visualised using ECL development solution.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

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