abcam

Product datasheet

Anti-alpha A Crystallin/CRYAA antibody [EPR14125(B)] ab181866

Recombinant RabMAb

3 References 3 Images

Overview

Product name	Anti-alpha A Crystallin/CRYAA antibody [EPR14125(B)]
Description	Rabbit monoclonal [EPR14125(B)] to alpha A Crystallin/CRYAA
Host species	Rabbit
Tested applications	**Suitable for:** WB, ICC/IF
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	Recombinant human alpha A Crystallin/CRYAA protein (**ab48778**) can be used as a positive control in WB. Rat and Mouse eyeball. Y79 cells.
General notes	This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

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 long term. Avoid freeze / thaw cycle.
Storage buffer	Preservative: 0.01% Sodium azide Constituents: 40% Glycerol (glycerin, glycerine), 0.05% BSA, 59% PBS
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR14125(B)
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab181866 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		1/1000 - 1/2000. Predicted molecular weight: 20 kDa.
ICC/IF		1/500.

Target

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

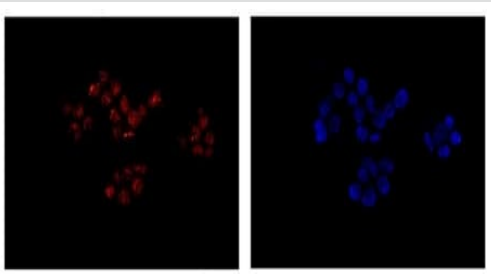
Involvement in disease Defects in CRYAA are a cause of cataract autosomal dominant (ADC) [MIM:604219]. Cataract is an opacification of the crystalline lens of the eye that frequently results in visual impairment or blindness. Opacities vary in morphology, are often confined to a portion of the lens, 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.

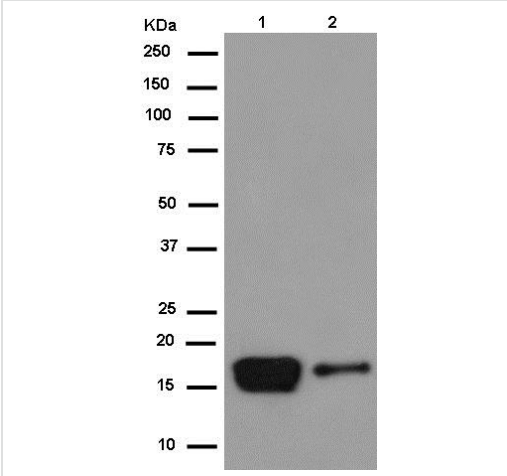
Cellular localization Cytoplasm. Nucleus. Translocates to the nucleus during heat shock and resides in sub-nuclear structures known as SC35 speckles or nuclear splicing speckles.

Images



Immunocytochemistry/ Immunofluorescence - Anti-alpha A Crystallin/CRYAA antibody [EPR14125(B)] (ab181866)

Immunofluorescence analysis of Y79 cells fixed with acetone labeling alpha A Crystallin/CRYAA with ab181866 at 1/500 dilution followed by Goat anti rabbit IgG(Alexa Fluor®555) at 1/200 dilution and counterstained with Dapi.



Western blot - Anti-alpha A Crystallin/CRYAA antibody [EPR14125(B)] (ab181866)

All lanes : Anti-alpha A Crystallin/CRYAA antibody [EPR14125(B)] (ab181866) at 1/2000 dilution

Lane 1 : Rat eyeball

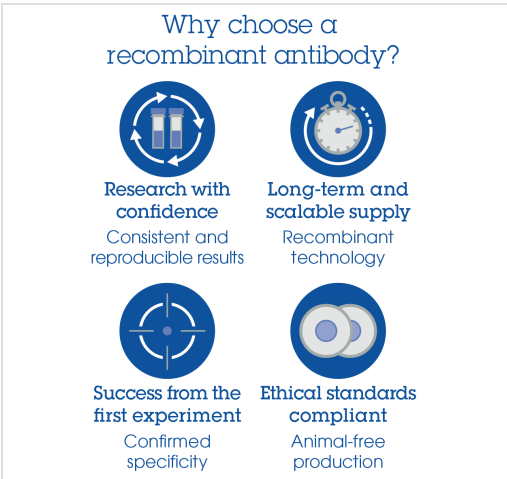
Lane 2 : Mouse eyeball

Lysates/proteins at 20 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

Predicted band size: 20 kDa



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