

Datasheet for ABIN6656059

anti-CRYAA antibody



[Go to Product page](#)

1 Image

1 Publication

Overview

Quantity:	200 µg
Target:	CRYAA
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This CRYAA antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Immunofluorescence (IF)

Product Details

Purpose:	Alpha A Crystallin Antibody
Immunogen:	Alpha Crystallin Antibody was produced in mice by repeated immunizations with Native Alpha Crystallin protein.
Clone:	1H3-B8
Isotype:	IgG1
Cross-Reactivity (Details):	A BLAST analysis was used to suggest cross-reactivity with Alpha A Crystallin from Human, Mouse, Cow, and Rat based on 100 % homology with the immunizing sequence.
Purification:	Anti-Alpha A Crystallin Antibody was purified by Protein G chromatography.
Sterility:	Sterile filtered

Target Details

Target:	CRYAA
Alternative Name:	Alpha A Crystallin (CRYAA Products)
Background:	Synonyms: Heat shock protein beta4, Acry 1, CRYA1, CRYAA, HspB4, Alpha-crystallin A chain Background: The alpha-crystallins are major water-soluble lens structural proteins of the vertebrate eye that are related to the small heat shock protein family. The alpha-crystallins possess structural and functional similarities with Hsp25 and Hsp27. Mammalian lens crystallins are divided into alpha, beta and gamma families. Alpha and beta families are further divided into acidic and basic groups (Alpha-A and Alpha-B respectively). In the lens, alpha-crystallin primarily functions to maintain proper refractive index, however it can also function as a molecular chaperone that binds to the denatured proteins, keeping them in solution and thereby maintaining the translucency of the lens. When cellular stress occurs, alpha-crystallin enters its' phosphorylated state and may serve a structural control function and play a role in protein maintenance. In addition to their interaction with proteins, alpha-crystallins also interact with native molecules such as membrane proteins, Golgi matrix protein, structural proteins, nuclear proteins and DNA. Two other functions are an autokinase activity and participation in the intracellular architecture, and it has also been proven that both alpha-A and B prevent apoptosis by inhibiting caspases. Gene Name: CRYAA
Gene ID:	1409
NCBI Accession:	NP_000385
UniProt:	P02489
Pathways:	M Phase

Application Details

Application Notes:	ELISA_Dilution: 1:200 Western_Blot_Dilution: 1:2000
Comment:	Anti-Alpha A Crystallin Antibody has been tested in WB and IF and is recommended for use in ELISA. Expect a band approximately ~20kDa protein corresponding to the molecular mass of α -crystallin on SDS PAGE immunoblots. Specific conditions for reactivity should be optimized by the end user.
Restrictions:	For Research Use only

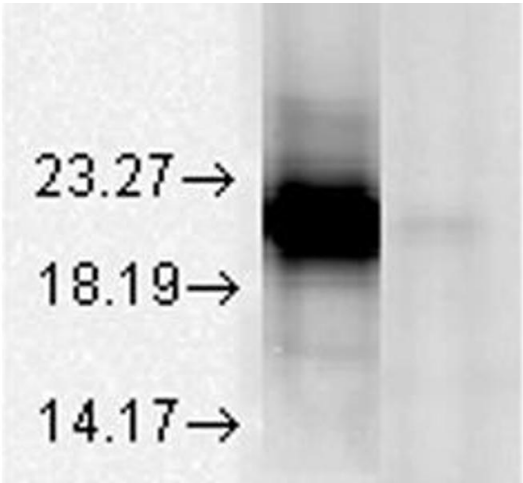
Handling

Format:	Liquid
Buffer:	Buffer: 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2 Stabilizer: 50 % (v/v) Glycerol
Storage:	4 °C,-20 °C
Storage Comment:	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiry Date:	12 months

Publications

Product cited in:	Wei, Hao, Chen, Gan, Fan: "A tamoxifen-inducible Cre knock-in mouse for lens-specific gene manipulation." in: Experimental eye research , Vol. 226, pp. 109306, (2023) (PubMed).
-------------------	---

Images



Western Blotting

Image 1. Alpha A Crystallin Western Blot. Western Blot of mouse Anti-Alpha A Crystallin Antibody. Lane 1: AlphaA Crystallin Lane2: AlphaB Crystallin. Load: 20ug per lane. Primary antibody: AlphaA-Crystallin 1:1000 for overnight at 4°C . Secondary antibody: Goat anti-Mouse IgG HRP antibody at 1:40,000 for 45 min at RT. Block: 5% Blotto overnight at 4°C. Predicted/Observed size: 19.9 kDa, 20 kDa for Alpha A.