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# Datasheet for ABIN1724688 anti-CRYAB antibody (AA 1-175)

3 Images

1 Publication



### Overview

Quantity:	100 µL
Target:	CRYAB
Binding Specificity:	AA 1-175
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This CRYAB antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Immunohistochemistry (IHC)

## Product Details

Immunogen:	Purified recombinant fragment of CRYAB (aa1-175) expressed in E. coli.
Clone:	1D11C6E6
lsotype:	lgG2a
Purification:	purified

## Target Details

Target:	CRYAB
Alternative Name:	CRYAB (CRYAB Products)
Background:	Description: Crystallin, alpha B. Crystallins are separated into two classes: taxon-specific, or
	enzyme, and ubiquitous. The latter class constitutes the major proteins of vertebrate eye lens

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and maintains the transparency and refractive index of the lens. Since lens central fiber cells
lose their nuclei during development, these crystallins are made and then retained throughout
life, making them extremely stable proteins. Mammalian lens crystallins are divided into alpha,
beta, and gamma families, beta and gamma crystallins are also considered as a superfamily.
Alpha and beta families are further divided into acidic and basic groups. Seven protein regions
exist in crystallins: four homologous motifs, a connecting peptide, and N- and C-terminal
extensions. Alpha crystallins 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 also known as the HSP20) family. They act as molecular
chaperones although they do not renature proteins and release them in the fashion of a true
chaperone, instead they hold them in large soluble aggregates. Post-translational modifications
decrease the ability to chaperone. These heterogeneous aggregates consist of 30-40 subunits,
the alpha-A and alpha-B subunits have a 3:1 ratio, respectively. Two additional functions of
alpha crystallins are an autokinase activity and participation in the intracellular architecture.
Alpha-A and alpha-B gene products are differentially expressed, alpha-A is preferentially
restricted to the lens and alpha-B is expressed widely in many tissues and organs. Elevated
expression of alpha-B crystallin occurs in many neurological diseases, a missense mutation
cosegregated in a family with a desmin-related myopathy.
Aliases: CRYA2, CTPP2, HSPB5, CRYAB

Gene ID:	1410
HGNC:	1410

## Application Details

Application Notes:	ELISA: 1:10000, WB: 1:500 - 1:2000, IHC: 1:200 - 1:1000
Restrictions:	For Research Use only
Handling	
Format:	Liquid
Buffer:	Ascitic fluid containing 0.03 % sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which
	should be handled by trained staff only.

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Storage:	4 °C/-20 °C
Storage Comment:	4°C, -20°C for long term storage
Publications	
Product cited in:	Ghosh, Shenoy, Clark: "N- and C-Terminal motifs in human alphaB crystallin play an important role in the recognition, selection, and solubilization of substrates." in: <b>Biochemistry</b> , Vol. 45, Issue 46, pp. 13847-54, (2006) (PubMed).

#### Images



## Western Blotting

**Image 1.** Western blot analysis using CRYAB mouse mAb against HEK293T cells transfected with the pCMV6-ENTRY control (1) and pCMV6-ENTRY CRYAB cDNA (2).



#### Immunohistochemistry

**Image 2.** Immunohistochemical analysis of paraffinembedded human skeletal muscle tissues using CRYAB mouse mAb.



#### Immunohistochemistry

**Image 3.** Immunohistochemical analysis of paraffinembedded human brain hippocampus (A), lung cancer (B), brain tumor (C), breast cance (D), showing cytoplasmic localization with DAB staining using CRYAB mouse mAb.

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