

Rabbit CRYAB Polyclonal Antibody | anti-CRYAB antibody

CRYAB Antibody (Center)

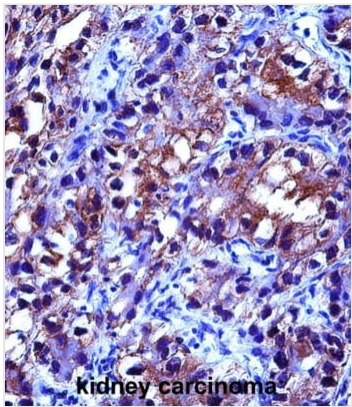
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA290031	Rabbit	Human, mouse (Predicted Reactivity: Bovine, Monkey, Pig, Rabbit, Rat, Sheep)	Immunohistochemistry, ELISA, Western Blot

PRODUCT SYNONYMS

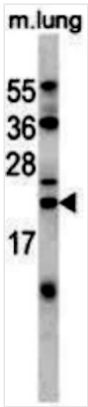
CRYAB; Polyclonal Antibody; CRYAB Antibody (Center); Alpha-crystallin B chain; Alpha(B)-crystallin; Heat shock protein beta-5; HspB5; Renal carcinoma antigen NY-REN-27; Rosenthal fiber component; CRYA2; anti-CRYAB antibody

PRODUCT SPECIFICATIONS

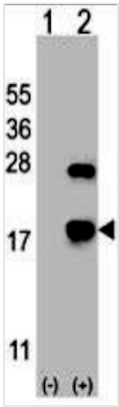
Host	Rabbit
Reactivity	Human, mouse (Predicted Reactivity: Bovine, Monkey, Pig, Rabbit, Rat, Sheep)
Clonality	Polyclonal
Isotype	IgG
Specificity	This CRYAB antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 84-112 amino acids from the Central region of human CRYAB.
Purity/Purification	This antibody is purified through a protein A column, followed by peptide affinity purification.
Form/Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide.
Sequence Positions	84-112
Sequence Length	175
Applicable Applications for anti-CRYAB antibody	IHC (Immunohistochemistry), ELISA, WB (Western Blot)
Function	May contribute to the transparency and refractive index of the lens. Has chaperone-like activity, preventing aggregation of various proteins under a wide range of stress conditions. In lens epithelial cells, stabilizes the ATP6V1A protein, preventing its degradation by the proteasome (By similarity).
Cellular Location	Cytoplasm. Nucleus Secreted. Lysosome {ECO:0000250 UniProtKB:P23927}. Note=Translocates to the nucleus during heat shock and resides in sub-nuclear structures known as SC35 speckles or nuclear splicing speckles (PubMed:19464326). Localizes at the Z- bands and the intercalated disk in cardiomyocytes (PubMed:28493373) Can be secreted; the secretion is dependent on protein unfolding and facilitated by the cargo receptor TMED10; it results in protein translocation from the cytoplasm into the ERGIC (endoplasmic reticulum- Golgi intermediate compartment) followed by vesicle entry and secretion (PubMed:32272059).
Tissue Location	Lens as well as other tissues (PubMed:838078, PubMed:2387586). Expressed in myocardial tissue (PubMed:28493373)
Preparation and Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.



IHC (Immunohistochemistry)
CRYA Antibody (Center) immunohistochemistry analysis in formalin fixed and paraffin embedded human kidney carcinoma followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of CRYA Antibody (Center) for immunohistochemistry. Clinical relevance has not been evaluated.



WB (Western Blot)
CRYAB Antibody (Center) western blot analysis in mouse lung tissue lysates (35ug/lane). This demonstrates the CRYAB antibody detected the CRYAB protein (arrow).



WB (Western Blot)
Western blot analysis of CRYAB (arrow) using rabbit polyclonal CRYAB Antibody (Center). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected (Lane 2) with the CRYAB gene.

ADDITIONAL INFORMATION

Related Product Information for anti-CRYAB antibody	Crystallins are separated into two classes: taxon-specific, or enzyme, and ubiquitous. The latter class constitutes the major proteins of vertebrate eye lens 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.
Product Categories/Family for anti-CRYAB antibody	Cancer; Metabolism; Neuroscience; Signal transduction

References	Martins-de-Souza, D., et al. J Psychiatr Res 44(14):989-991(2010) Jehle, S., et al. Nat. Struct. Mol. Biol. 17(9):1037-1042(2010) Kida, E., et al. J. Neuropathol. Exp. Neurol. 69(7):745-759(2010) Deng, Y., et al. BMB Rep 43(6):432-437(2010) Houck, S.A., et al. PLoS ONE 5 (7), E11795 (2010) :
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NCBI AND UNIPROT INFORMATION

NCBI GI #	4503057
NCBI GeneID	1410
NCBI Accession #	NP_001876.1
NCBI GenBank Nucleotide #	NM_001885.2
UniProt Accession #	P02511; O43416; Q9UC37; Q9UC38; Q9UC39; Q9UC40; Q9UC41; B0YIX0
Molecular Weight	20159
NCBI Official Full Name	alpha-crystallin B chain
NCBI Official Synonym Full Names	crystallin, alpha B
NCBI Official Symbol	CRYAB
NCBI Official Synonym Symbols	MFM2; CRYA2; CTPP2; HSPB5; CMD1II; CTRCT16; HEL-S-101
NCBI Protein Information	alpha-crystallin B chain
UniProt Protein Name	Alpha-crystallin B chain
UniProt Gene Name	CRYAB
UniProt Synonym Gene Names	CRYA2; HspB5
UniProt Entry Name	CRYAB_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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 Online datasheet: <https://stage.aaabiotech.com/polyclonal/cryab-antibody-immunohistochemistry-western-blot-elisa/290031>