Product Name: **CRYAB Mouse Monoclonal Antibody**
Catalog #: **AMM80628**
For research use only.

Summary

Description	Mouse monoclonal Antibody
Host	Mouse
Application	IHC,ELISA
Reactivity	Human
Conjugation	Unconjugated
Modification	Unmodified
Isotype	Mouse IgG2a
Clonality	Monoclonal
Form	Liquid
Concentration	1mg/ml
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Purified antibody in PBS with 0.05% sodium azide.
Purification	Affinity Purification

Application

Dilution Ratio	IHC 1:200-1:1000,ELISA 1:5000-1:20000
Molecular Weight	/

Antigen Information

Gene Name	CRYAB
Alternative Names	CRYA2; CTPP2; HSPB5; CRYAB
Gene ID	1410.0
SwissProt ID	P02511
Immunogen	Purified recombinant fragment of CRYAB (aa1-175) expressed in E. Coli.

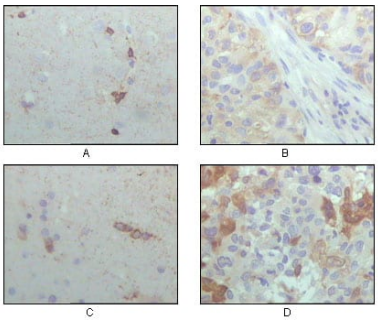
Background

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 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

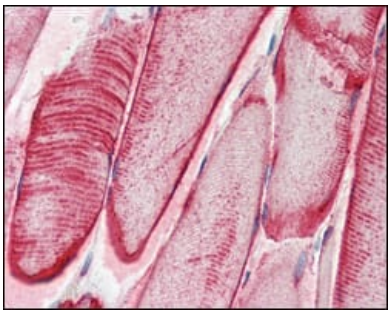
them extremely stable proteins. Mammalian lens crystallins are divided into alpha, beta, and gamma families; beta and gamma crystallins are also considered as a superfamily. Alpha and beta families are further divided into acidic and basic groups. Seven protein regions exist in crystallins: four homologous 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.

Research Area

Image Data



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



Immunohistochemical analysis of paraffin-embedded human skeletal muscle tissues using CRYAB mouse mAb.