Product Name: Crystallin-αB (phospho Ser59) Rabbit Polyclonal Antibody
Catalog #: APRab04507

Summary

Production Name	Crystallin-αB (phospho Ser59) Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	IHC,ELISA
Reactivity	Human,Mouse,Rat

Performance

Conjugation	Unconjugated
Modification	Phospho Antibody
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	CRYAB
Alternative Names	CRYAB; CRYA2; Alpha-crystallin B chain; Alpha(B)-crystallin; Heat shock protein beta-5; HspB5; Renal carcinoma antigen NY-REN-27; Rosenthal fiber component
Gene ID	1410.0
SwissProt ID	P02511.The antiserum was produced against synthesized peptide derived from human CRYAB/Crystallin-alpha-B around the phosphorylation site of Ser59. AA range:31-80

Application

Dilution Ratio	IHC 1:100-1:300 ELISA: 1:5000
Molecular Weight	

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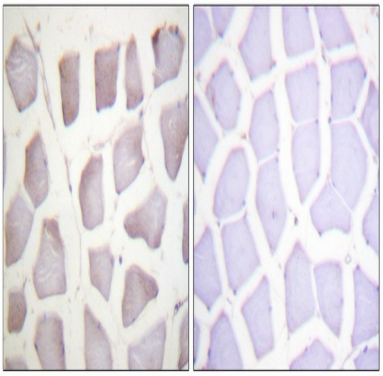
Background

Mammalian lens crystallins are divided into alpha, beta, and gamma families. 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 (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. The encoded protein has been identified as a moonlighting protein based on its ability to perform mechanistically distindisease:Crystallins do not turn over as the lens ages, providing ample opportunity for post-translational modifications or oxidations. These modifications may change crystallin solubility properties and favor senile cataract.,disease:Defects in CRYAB are the cause of alpha-B crystallinopathy [MIM:608810]. Alpha-B crystallinopathy is a an autosomal dominant form of desmin-related myopathy (DRM) that results in weakness of the proximal and distal limb muscle (including neck, velopharynx, and trunk muscles), signs of cardiomyopathy and cataract. Patients with progressive myopathy characterized by myofibrillar degeneration that commences at the Z-disk, have been described. Mutations truncate the essential C-terminal domain of the protein required for the chaperone function.,disease:Seen as Rosenthal fiber protein in the brain tissue of patients with Alexander disease.,function:May contribute to the transparency and refractive index of the lens.,mass spectrometry: PubMed:10930324,mass spectrometry: PubMed:8175657,mass spectrometry:With 1 phosphate group PubMed:10930324,mass spectrometry:With 1 phosphate group PubMed:8175657,mass spectrometry:With 2 phosphate groups PubMed:8175657,similarity:Belongs to the small heat shock protein (HSP20) family.,subunit:Aggregates with homologous proteins, including CRYAA and the small heat shock protein HSPB1, to form large heteromeric complexes. Interacts with HSPBAP1 and TTN/titin.,tissue specificity:Lens as well as other tissues.,

Research Area

Image Data



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Immunohistochemistry analysis of paraffin-embedded human skeletal muscle, using CRYAB/Crystallin-alpha-B (Phospho-Ser59) Antibody. The picture on the right is blocked with the phospho peptide.

Note

For research use only.