Anti-alpha B Crystallin Rabbit mAb

Purified Recombinant Rabbit Monoclonal Antibody

Catalog # R010926

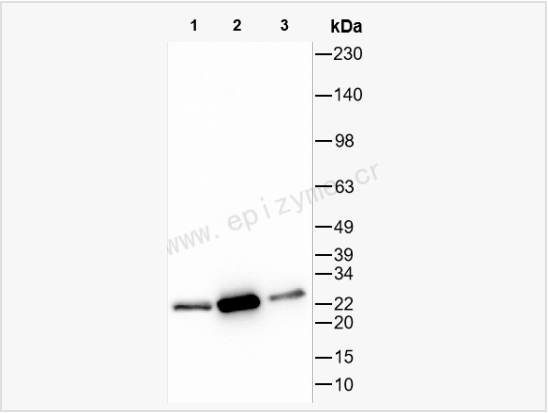
Product Information

Application	WB, IHC-P/IF (Tissue-P), ELISA
Reactivity	Mouse, Rat
Dilution	WB 1:1,000~1:2,000; IHC-P 1:100~1:200; IF 1:100~1:200
Host	Rabbit
Clonality	Monoclonal
Clone No.	73K70L45
Isotype	IgG
Label	Unconjugated
Immunogen	A synthesized peptide derived from human Alpha B Crystallin
Format	Affinity purified monoclonal antibody supplied in PBS with 0.02% sodium azide and 50% glycerol, pH 7.3.
Storage	Shipped on wet ice. Store at -20°C. Stable for 24 months from date of receipt. Aliquoting is unnecessary for -20°C storage.
Precautions	Anti-alpha B Crystallin Rabbit mAb [73K70L45] is for research use only and not for use in diagnostic or therapeutic procedures.

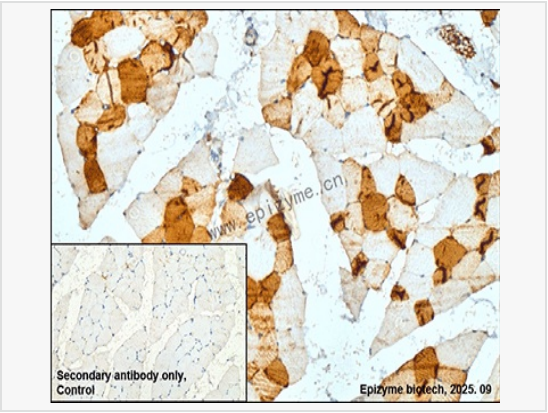
Protein Information

Synonyms	CRYA2; HSPB5; CRYAB; Alpha-crystallin B chain; Alpha(B)-crystallin; Heat shock protein beta-5; Heat shock protein family B member 5; Renal carcinoma antigen NY-REN-27; Rosenthal fiber component; HspB5.
Calculated MW	Calculated MW: 20 kDa; Observed MW: 22 kDa
Uniprot ID	P02511
Gene ID	1410
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 distinct functions. 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. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jan 2014]
Cellular Location	Cytoplasm Nucleus Secreted Lysosome 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

Validation Images



Western Blot - Anti-alpha B Crystallin Rabbit mAb [73K70L45]
All lanes: R010926 at 1:1,000 dilution
Lane 1: Mouse eyeball whole tissue lysates
Lane 2: Rat eyeball whole tissue lysates
Lane 3: Rat muscle whole tissue lysates
Lysates/proteins at 10 µg per lane.
Secondary antibody: Goat Anti-Rabbit IgG (H+L), HRP Conjugated (Cat. No. LF102) at 1:5,000 dilution
Predicted band size: 20 kDa
Observed band size: 22 kDa
Developed using the ECL technique (Cat. No. SQ201).



Immunohistochemistry - Anti-alpha B Crystallin Rabbit mAb [73K70L45]
Sample: Paraformaldehyde-fixed, paraffin embedded rat muscle tissue
Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins.
Primary antibody: R010926 at 1:200 dilution
Secondary antibody: Goat Anti-Rabbit IgG (H+L), HRP conjugated at 1:1,000 dilution
DAB was used as the chromogen.
Counter stained with hematoxylin.
Positive/negative staining were presented.
Only the secondary antibody was used as the negative control.