

Product Name: KD-Validated Crystallin Alpha B Recombinant Rabbit Monoclonal Antibody
Catalog #: KVA01768

For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Rabbit
Application	WB,FCM,ICC
Reactivity	Rat
Conjugation	Unconjugated
Modification	Unmodified
Isotype	Rabbit IgG
Clonality	Rabbit mAb
Form	Liquid
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Supplied in PBS (pH 7.4) containing 50% glycerol, and 0.02% sodium azide.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:1,000-1:5,000; FC 1:200-1:2,000; ICC 1:100-1:1,000
Molecular Weight	Calculated MW: 20.2kDa

Antigen Information

Gene Name	CRYAB
Alternative Names	CRYAB; Crystallin Alpha B; HSPB5; CRYA2; Renal Carcinoma Antigen NY-REN-27; Heat Shock Protein Beta-5; Rosenthal Fiber Component; Alpha-Crystallin B Chain; Epididymis Secretory Protein Li 101; Heat-Shock 20 KD Like-Protein; Crystallin, Alpha B; Alpha(B)-Crystallin; HEL-S-101; CTRCT16; CMD1II; CTPP2; HspB5; MFM2
Gene ID	1410.0
SwissProt ID	P02511
Immunogen	A synthesized peptide derived from human CRYAB

Background

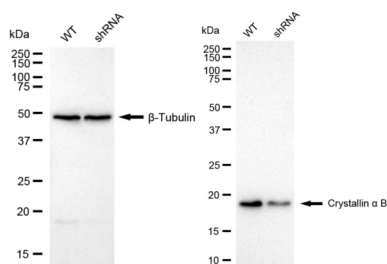
Mammalian lens crystallins are divided into alpha, beta, and gamma families. Alpha crystallins are composed of two gene

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. 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 2019]

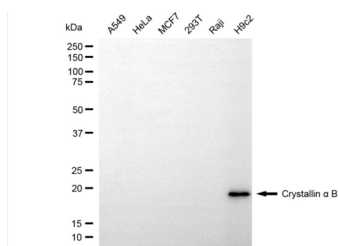
Research Area

Signal Transduction, Neuroscience, Cancer

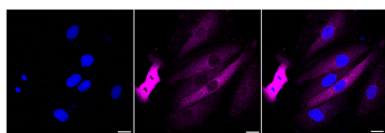
Image Data



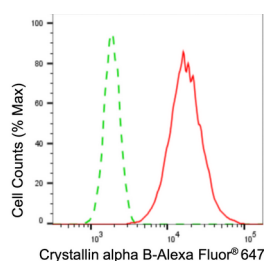
Western blotting analysis using crystallin α B antibody (KVA01768). Crystallin α B expression in wild type (WT) and crystallin α B (CRYAB) shRNA knockdown (KD) H9c2 cells with 20 μ g of total cell lysates. β -Tubulin serves as a loading control. The blot was incubated with crystallin α B antibody (KVA01768, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



Western blotting analysis using crystallin alpha B antibody (KVA01768). Total cell lysates (30 μ g) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with crystallin alpha B antibody (KVA01768, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



Immunocytochemical staining of HT-1080 cells with crystallin alpha B antibody (KVA01768, 1:1,000). Nuclei were stained blue with DAPI; Crystallin alpha B was stained magenta with Alexa Fluor[®] 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar: 20 μ m.



Flow cytometric analysis of Crystallin alpha B expression in H9c2 cells using crystallin alpha B antibody (KVA01768, 1:2,000). Green, isotype control; red, crystallin alpha B.

