

Human/Mouse/Rat AlphaB Crystallin/CRYAB Antibody

Monoclonal Mouse IgG_{2B} Clone # 731502

Catalog Number: MAB4849

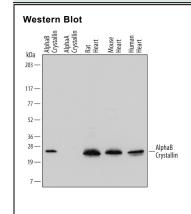
DESCRIPTION			
Species Reactivity	Human/Mouse/Rat		
Specificity	Detects human AlphaB Crystallin/CRYAB in direct ELISAs and human, mouse, and rat AlphaB Crystallin/CRYAB in Western blots. In direct ELISAs, no cross-reactivity with recombinant human AlphaA Crystallin/CRYAA is observed.		
Source	Monoclonal Mouse IgG _{2B} Clone # 731502		
Purification	Protein A or G purified from hybridoma culture supernatant		
Immunogen	E. coli-derived recombinant human Crystallin/CRYAB Met1-Lys175 Accession # P02511		
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.		

APPLICATIONS

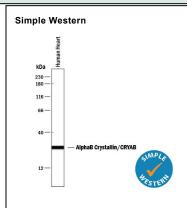
Please Note: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

	Recommended Concentration	Sample
Western Blot	0.1 μg/mL	See Below
Simple Western	1 μg/mL	See Below

DATA



Detection of Human, Mouse, and Rat AlphaB Crystallin/CRYAB by Western Blot. Western blot shows lysates of rat heart tissue, mouse heart tissue, and human heart tissue. PVDF membrane was probed with 0.1 µg/mL of Mouse Anti-Human/Mouse/Rat AlphaB Crystallin/CRYAB Monoclonal Antibody (Catalog # MAB4849) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). For additional reference, recombinant human AlphaB Crystallin/CRYAB and recombinant human AlphaA Crystallin/CRYAA (5 ng/lane) were included. A specific band was detected for AlphaB Crystallin/CRYAB at approximately 23 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.



Detection of Human AlphaB Crystallin/CRYAB by Simple Western TM. Simple Western Iane view shows lysates of human heart tissue, loaded at 0.2 mg/mL. A specific band was detected for AlphaB Crystallin/CRYAB at approximately 28 kDa (as indicated) using 1µg/mL of Mouse Anti-Human/Mouse/Rat AlphaB Crystallin/CRYAB Monoclonal Antibody (Catalog # MAB4849). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.

PREPARATION AND STORAGE

Reconstitution Sterile PBS to a final concentration of 0.5 mg/mL

Shipping The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

*Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C

- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 6 months, -20 to -70 °C under sterile conditions after reconstitution

BACKGROUND

CRY-alpha B (crystalline α-B chain/CRYAB; also HspB5) is a 22-23 kDa member of the HSP20 family of proteins. It has widespread expression, and is found in lens epithelium where it noncovalently oligomerizes with CRYAA to generate a transparent 350-1000 kDa α-crystalline protein complex. Human CRYAB is 175 amino acids (aa) in length. It contains an α-crystalline Hsp domain over aa 66-149. Multiple post-translational modifications may exist. The N-terminal Met and MetAsplleAlalleHis sequence is occasionally cleaved. It may also be phosphorylated at Ser45 and 59, be potentially O-GlcNAc modified at Thr158, 162 or 170, and acetylated at Lys92. An alternate start site at Met68 may be accompanied by a 47 aa substitution for aa 109-175. Full-length human CRYAB shares 54% aa sequence identity with CRYAA, and 98% aa identity with mouse CRYAB.

