

| DESCRIPTION | |
|---------------------------|---|
| Species Reactivity | Human/Mouse/Rat |
| Specificity | Detects human, mouse and rat AlphaB Crystallin/CRYAB in Western blots. In Western blots, less than 1% cross-reactivity with recombinant human CRYAA is observed. |
| Source | Polyclonal Goat IgG |
| Purification | Antigen Affinity-purified |
| Immunogen | <i>E. coli</i> -derived recombinant human AlphaB 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. |

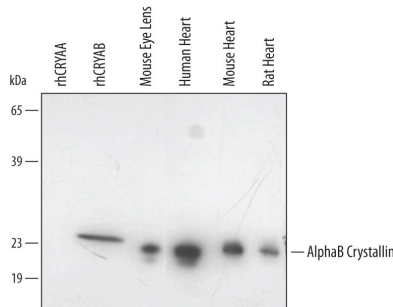
APPLICATIONS

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 | 0.2 µg/mL | See Below |
| Simple Western | 2 µg/mL | See Below |

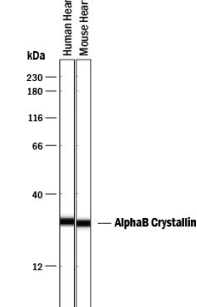
DATA

Western Blot



Detection of Human/Mouse/Rat AlphaB Crystallin/CRYAB by Western Blot. Western blot shows lysates of mouse eye lens and human, mouse, and rat heart tissue. PVDF membrane was probed with 0.2 µg/mL Human/Mouse/Rat AlphaB Crystallin/CRYAB Antigen Affinity-purified Polyclonal Antibody (Catalog # AF4849) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF017). For additional reference, recombinant human CRYAA and CRYAB (5 ng/lane) were included. A specific band for AlphaB Crystallin/CRYAB was detected at approximately 23 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 2.

Simple Western



Detection of Human and Mouse AlphaB Crystallin/CRYAB by Simple Western™. Simple Western lane view shows lysates of human heart tissue and mouse heart tissue, loaded at 0.2 mg/mL. A specific band was detected for AlphaB Crystallin/CRYAB at approximately 29 kDa (as indicated) using 2 µg/mL of Goat Anti-Human/Mouse/Rat AlphaB Crystallin/CRYAB Antigen Affinity-purified Polyclonal Antibody (Catalog # AF4849) followed by 1:50 dilution of HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF109). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.

PREPARATION AND STORAGE

| | |
|--------------------------------|--|
| Reconstitution | Reconstitute at 0.2 mg/mL in sterile PBS. |
| 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 |
| Stability & Storage | Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> • 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

AlphaB Crystallin (CRYAB, also known as Crystallin α-B chain and HspB5) is a 22-23 kDa member of the HSP20 family of proteins. It has widespread expression in many tissues in addition to lens epithelium, where it noncovalently oligomerizes with CRY-αA to generate a transparent 350-1000 kDa α-Crystallin protein complex. Human CRYAB is 175 amino acids (aa) in length. There is a α-Crystallin Hsp domain over aa 66-149. Multiple posttranslational modifications may exist. The N-terminal Met and MetAspIleAlaIleHis sequence is occasionally cleaved. There is also phosphorylation at Ser45 and 59, potential O-GlcNAc modification at Thr158, 162 or 170, and acetylation at Lys92. There is an alternate start site at Met68 that may be accompanied by a 47 aa substitution for aa 109-175. Full-length human CRYAB is 54% aa identical to CRY-AlphaA, and 98% aa identical to mouse CRYAB.