

DESCRIPTION

Species Reactivity	Human/Mouse
Specificity	Detects mouse AlphaA Crystallin/CRYAA in Western blots. In Western blots, less than 1% cross-reactivity with recombinant human CRYAB is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human AlphaA Crystallin/CRYAA Met1-Ser173 Accession # P02489
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 either lyophilized or 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

Western Blot

Detection of Human/Mouse AlphaA Crystallin/CRYAA by Western Blot. Western blot shows lysates of mouse eye lens tissue. PVDF membrane was probed with 0.1 µg/mL Goat Anti-Human/Mouse AlphaA Crystallin/CRYAA Antigen Affinity-purified Polyclonal Antibody (Catalog # AF4848) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF017). For additional reference, recombinant human CRYAA and CRYAB (5 ng/lane) were included. Bands for AlphaA Crystallin/CRYAA were detected at approximately 20 - 23 kDa (as indicated). This experiment was conducted under reducing conditions and using *Immunoblot Buffer Group 2*.

Simple Western

Detection of Mouse AlphaA Crystallin/CRYAA by Simple Western™. Simple Western lane view shows lysates of mouse eye lens tissue, loaded at 0.2 mg/mL. A specific band was detected for AlphaA Crystallin/CRYAA at approximately 28 kDa (as indicated) using 1 µg/mL of Goat Anti-Human/Mouse AlphaA Crystallin/CRYAA Antigen Affinity-purified Polyclonal Antibody (Catalog # AF4848) 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

AlphaA Crystallin (CRYAA, also known as Crystallin α-A chain and HspB4) is a 21-22 kDa member of the HSP20 family of proteins. It is found in lens epithelium where it noncovalently oligomerizes with CRY-αB to generate a transparent 350-1000 kDa α-Crystallin protein complex. Human CRYAA is 173 amino acids (aa) in length. There is a α-Crystallin Hsp domain over aa 63-145. Multiple posttranslational modifications may exist. The C-terminal Ser and the N-terminal MetAspVal is occasionally cleaved. There is also phosphorylation at Ser45 and 122, O-linked GlcNAc modification at Ser162, deamidation at Asn101, and acetylation at Lys70. Full-length human CRYAA is 54% aa identical to CRY-AlphaB, and 95% aa identical to mouse CRYAA.