Datasheet for ABIN2486811

anti-CRYAB antibody (HRP)

4 Images

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Overview

Quantity:	200 µL
Target:	CRYAB
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This CRYAB antibody is conjugated to HRP
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunofluorescence (IF), Immunocytochemistry (ICC)

Product Details

Immunogen:	Synthetic peptide corresponding to human alpha B crystallin conjugated to KLH
Specificity:	Detects ~22 kDa. Does not cross-react with αA-crystallin.
Cross-Reactivity:	Chicken, Cow, Human, Mouse, Rat
Purification:	Affinity Purified

Target Details

Target:	CRYAB
Alternative Name:	Alpha B Crystallin (CRYAB Products)
Background:	The alpha-crystallins are major water-soluble lens structural proteins of the vertebrate eye that are related to the small heat shock protein family. The alpha-crystallins possess structural and functional similarities with HSP25 and HSP27 (1). Mammalian lens cystallins are divided into

Target Details

	alpha, beta and gamma families. Alpha and beta families are further divided into acidic and basic groups (Alpha-A and Alpha-B respectively). In the lens, alpha-crystallin primarily functions to maintain proper refractive index, however it can also function as a molecular chaperone that binds to the denatured proteins, keeping them in solution and thereby maintaining the translucency of the lens. When cellular stress occurs, alpha-crystallin enters its' phosphorylated state and may serve a structural control function and play a role in protein maintenance (2). In addition to their interaction with proteins, alpha-crystallins also interact with native molecules such as membrane proteins, Golgi matrix protein, structural proteins, nuclear proteins and DNA (3, 4, 5, 6, and 7). Two other functions are an autokinase activity and participation in the intracellular architecture, and it has also been proven that both alpha-A and B prevent apoptosis by inhibiting caspases (8). Specifically, alpha-B cystallin is found in many cells and organs outside the lens, and alpha B is overexpressed in several neurological disorders and in cell lines under stress conditions (9).
Gene ID:	1410
NCBI Accession:	NP_001876
UniProt:	P02511

Application Details

Application Notes:	• WB (1:5000) • ICC/IF (1:120) • optimal dilutions for assays should be determined by the user.
Comment:	A 1:5000 dilution of ABIN2486811 was sufficient for detection of alpha B crystallin in 20 µg of HeLa cell lysate by ECL immunoblot analysis.
Restrictions:	For Research Use only

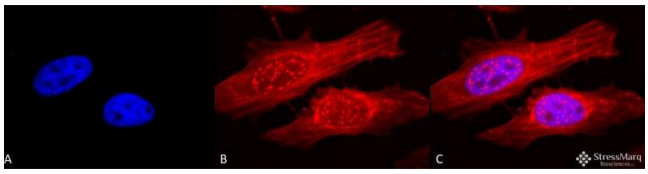
Handling

Format:	Liquid
Concentration:	1 mg/mL
Buffer:	PBS pH 7.4, 50 % glycerol, 0.09 % sodium azide, Storage buffer may change when conjugated
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

Handling

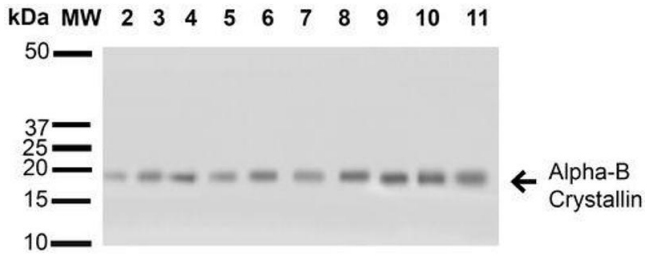
Storage:	4 °C
Storage Comment:	Conjugated antibodies should be stored at 4°C

Images



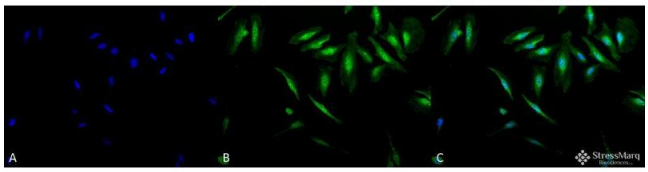
Immunofluorescence (fixed cells)

Image 1. Immunocytochemistry/Immunofluorescence analysis using Rabbit Anti-Alpha B Crystallin Polyclonal Antibody . Tissue: Heat Shocked HeLa Cells. Species: Human. Fixation: 2% Formaldehyde for 20 min at RT. Primary Antibody: Rabbit Anti-Alpha B Crystallin Polyclonal Antibody at 1:120 for 12 hours at 4°C. Secondary Antibody: APC Goat Anti-Rabbit (red) at 1:200 for 2 hours at RT. Counterstain: DAPI (blue) nuclear stain at 1:40000 for 2 hours at RT. Localization: Actin filament bundles. Nuclear splicing speckles. Exosomes. Magnification: 100x. (A) DAPI (blue) nuclear stain. (B) Anti-Alpha B Crystallin Antibody. (C) Composite. Heat Shocked at 42°C for 1h.



Western Blotting

Image 2. Western blot analysis of Human A431, HCT116, HeLa, HepG2, HEK293, HUVEC, Jurkat, MCF7, PC3 and T98G cell lysates showing detection of ~22 kDa Alpha B Crystallin protein using Rabbit Anti-Alpha B Crystallin Polyclonal Antibody . Lane 1: Molecular Weight Ladder (MW). Lane 2: A431 cell lysates. Lane 3: HCT116 cell lysates. Lane 4: HeLa cell lysates. Lane 5: HepG2 cell lysates. Lane 6: HEK293 cell lysates. Lane 7: HUVEC cell lysates. Lane 8: Jurkat cell lysates. Lane 9: MCF7 cell lysates. Lane 10: PC3 cell lysates. Lane 11: T98G cell lysates. Load: 15 µg. Block: 5% Skim Milk in 1X TBST. Primary Antibody: Rabbit Anti-Alpha B Crystallin Polyclonal Antibody at 1:1000 for 60 min at RT. Secondary Antibody: Goat Anti-Rabbit IgG: HRP at 1:1000 for 60 min at RT. Color Development: ECL solution for 6 min in RT.



Predicted/Observed Size: ~22 kDa.

Immunofluorescence (fixed cells)

Image 3. Immunocytochemistry/Immunofluorescence analysis using Rabbit Anti-Alpha B Crystallin Polyclonal Antibody . Tissue: Heat Shocked HeLa Cells. Species: Human. Fixation: 2% Formaldehyde for 20 min at RT. Primary Antibody: Rabbit Anti-Alpha B Crystallin Polyclonal Antibody at 1:120 for 12 hours at 4°C. Secondary Antibody: FITC Goat Anti-Rabbit (green) at 1:200 for 2 hours at RT. Counterstain: DAPI (blue) nuclear stain at 1:40000 for 2 hours at RT. Localization: Actin filament bundles. Nuclear splicing speckles. Exosomes. Magnification: 20x. (A) DAPI (blue) nuclear stain. (B) Anti-Alpha B Crystallin Antibody. (C) Composite. Heat Shocked at 42°C for 1h.

Please check the product details page for more images. Overall 4 images are available for ABIN2486811.