Datasheet for ABIN2481843

anti-CRYAA antibody (APC)

2 Images

Go to Product page

Overview

Quantity:	200 µg
Target:	CRYAA
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This CRYAA antibody is conjugated to APC
Application:	Western Blotting (WB), ELISA, Immunofluorescence (IF), Immunocytochemistry (ICC)

Product Details

Immunogen:	Native Alpha Crystallin
Clone:	1H3-B8
Isotype:	IgG1
Specificity:	Detects ~20 kDa. Does not cross-react with αB-crystallin, βL-crystallin, BH- crystallin, γ-crystallin, HSP25, HSP27 or HSP47 proteins.
Cross-Reactivity:	Cow, Human, Mouse, Rat
Purification:	Protein G Purified

Target Details

Target:	CRYAA
Alternative Name:	Alpha A Crystallin (CRYAA Products)

Target Details

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 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).
Gene ID:	1409
NCBI Accession:	NP_000385
UniProt:	P02489
Pathways:	M Phase

Application Details

Application Notes:	• WB (1:2000) • ICC/IF (1:100) • optimal dilutions for assays should be determined by the user.
Comment:	0.5 µg/ml was sufficient for detection of 100 ng purified alphaA crystalline by colorimetric immunoblot analysis using Goat Anti-Mouse IgG:HRP as the secondary.
Restrictions:	For Research Use only

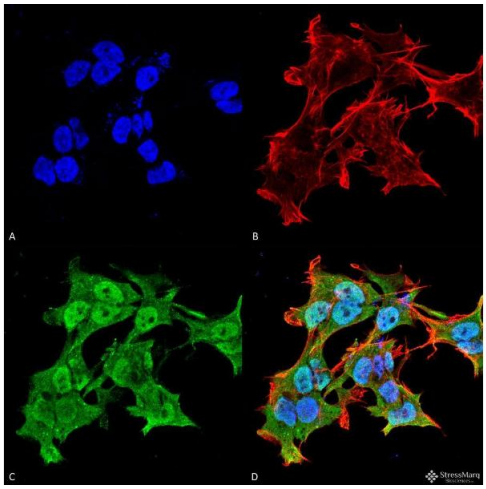
Handling

Format:	Liquid
Concentration:	1 mg/mL
Buffer:	PBS pH 7.2, 50 % glycerol, 0.09 % sodium azide, Storage buffer may change when conjugated
Preservative:	Sodium azide

Handling

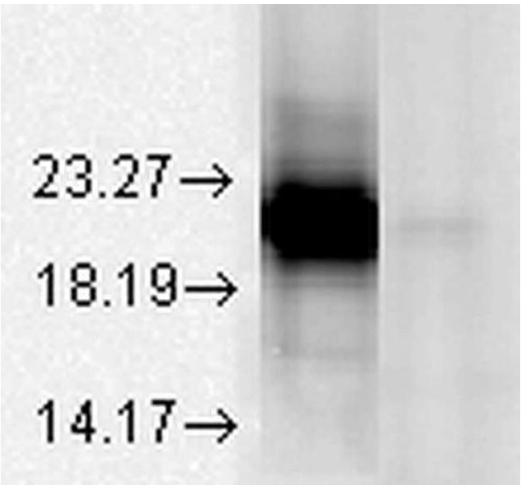
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C
Storage Comment:	Conjugated antibodies should be stored at 4°C

Images



Immunofluorescence (fixed cells)

Image 1. Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-Alpha A Crystallin Monoclonal Antibody, Clone 1H3.B8 . Tissue: Neuroblastoma cell line (SK-N-BE). Species: Human. Fixation: 4% Formaldehyde for 15 min at RT. Primary Antibody: Mouse Anti-Alpha A Crystallin Monoclonal Antibody at 1:100 for 60 min at RT. Secondary Antibody: Goat Anti-Mouse ATTO 488 at 1:100 for 60 min at RT. Counterstain: Phalloidin Texas Red F-Actin stain; DAPI (blue) nuclear stain at 1:1000, 1:5000 for 60min RT, 5min RT. Localization: Cytoplasm . Magnification: 60X. (A) DAPI (blue) nuclear stain (B) Phalloidin Texas Red F-Actin stain (C) Alpha A Crystallin Antibody (D) Composite.



Western Blotting

Image 2. Western Blot analysis of Bovine tissue lysate showing detection of Alpha A Crystallin protein using Mouse Anti-Alpha A Crystallin Monoclonal Antibody, Clone 1H3.B8 . Load: 15 µg. Block: 1.5% BSA for 30 minutes at RT. Primary Antibody: Mouse Anti-Alpha A Crystallin Monoclonal Antibody at 1:1000 for 2 hours at RT. Secondary Antibody: Sheep Anti-Mouse IgG: HRP for 1 hour at RT. This blot shows absolute specificity as Left: Alpha A Crystallin, Right: Alpha B Crystallin.