

## Product Datasheet

### Alpha B Crystallin Antibody (FITC) (orb147586)

<b>Catalog Number</b>	orb147586
<b>Category</b>	Antibodies
<b>Description</b>	<p>Mouse monoclonal to Alpha B Crystallin (FITC). 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. Mammalian lens crystallins 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. 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. Specifically, alpha-B crystallin 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..</p>
<b>Target</b>	Alpha B Crystallin
<b>Clonality</b>	Monoclonal
<b>Species/Host</b>	Mouse
<b>Isotype</b>	IgG1
<b>Conjugation</b>	FITC
<b>Reactivity</b>	Bovine, Human, Rat

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<b>Concentration</b>	1 mg/ml
<b>Buffer/Preservatives</b>	640.91mM DMSO, 136.36 mM Ethanolamine, 126.89 mM chlorides, 9.09mM phosphates, 9.09mM NaHCO <sub>3</sub>
<b>Purification</b>	Protein G Purified
<b>Immunogen</b>	Native Alpha B Crystallin
<b>UniProt ID</b>	<b>P02511</b>
<b>MW</b>	21kDa
<b>Tested applications</b>	ELISA, ICC, IF, IHC, WB
<b>Dilution range</b>	WB (1:2000), ICC/IF (1:100)
<b>Application notes</b>	0.5 µg/ml was sufficient for detection of 50 ng purified alpha B crystalline by colorimetric immunoblot analysis using Goat anti-mouse IgG:HRP as the secondary antibody.
<b>Specificity</b>	Detects ~20kDa (predicted mol.weight is ~21kDa). Does not cross-react with αA-crystallin, βL-crystallin, BH-crystallin, γ-crystallin, HSP25, HSP27 or HSP47 proteins.
<b>Clone Number</b>	3A10.C9
<b>Storage</b>	Conjugated antibodies should be stored according to the product label
<b>Note</b>	For research use only
<b>Entrez</b>	<b>1410</b>
<b>NCBI</b>	<b>NP_001876.1</b>
<b>Expiration Date</b>	12 months from date of receipt.

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