

## Product datasheet for **TA326428**

### Alpha B Crystallin (CRYAB) Mouse Monoclonal Antibody [Clone ID: 1A7.D5]

#### Product data:

Product Type:	Primary Antibodies
Clone Name:	1A7.D5
Applications:	WB
Recommended Dilution:	WB: 1:2000
Reactivity:	Human, Bovine
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Native Alpha B Crystallin
Formulation:	PBS pH7.2, 50% glycerol, 0.09% sodium azide
Concentration:	lot specific
Purification:	Protein G Purified
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	crystallin alpha B
Database Link:	<a href="#">NP_001876</a> <a href="#">Entrez Gene 1410 Human P02511</a>



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**Background:**

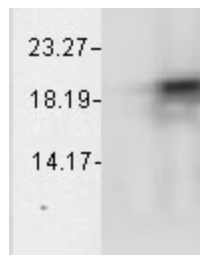
The alpha-crystallins are major water-soluble lens structural proteins of the vertebrate eye that are related to the small heat shock protein family. The alpha-crystallins possess structural and functional similarities with Hsp25 and Hsp27. Mammalian lens crystallins are divided into alpha, beta and 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. 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.

**Synonyms:**

CMD11I; CRYA2; CTPP2; CTRCT16; HEL-S-101; HSPB5; MFM2

**Note:**

Detects a band at ~20kDa (Predicted mol. weight is ~21 kDa) corresponding to aB-crystallin. Does not cross-react with aA-crystallin,  $\beta$ L-crystallin,  $\beta$ H-crystallin,  $\gamma$ -crystallin, Hsp25, Hsp27 or Hsp47 proteins.

**Product images:**

Western blot analysis of AlphaB Crystallin in bovine cell lines using a 1:1000 dilution of the antibody