

CRYBB1 Antibody (monoclonal) (M03)

Mouse monoclonal antibody raised against a partial recombinant CRYBB1.

Catalog # AT1643a

Product Information

Application	WB, E
Primary Accession	P53674
Other Accession	NM_001887
Reactivity	Human
Host	mouse
Clonality	monoclonal
Isotype	IgG2b Kappa
Clone Names	3D9
Calculated MW	28023

Additional Information

Gene ID	1414
Other Names	Beta-crystallin B1, Beta-B1 crystallin, CRYBB1
Target/Specificity	CRYBB1 (NP_001878, 37 a.a. ~ 137 a.a) partial recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.
Dilution	WB~~1:500~1000 E~~N/A
Format	Clear, colorless solution in phosphate buffered saline, pH 7.2 .
Storage	Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.
Precautions	CRYBB1 Antibody (monoclonal) (M03) is for research use only and not for use in diagnostic or therapeutic procedures.

Background

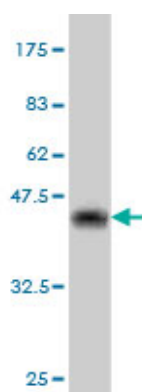
Crystallins are separated into two classes: taxon-specific, or enzyme, and ubiquitous. The latter class constitutes the major proteins of vertebrate eye lens and maintains the transparency and refractive index of the lens. Since lens central fiber cells lose their nuclei during development, these crystallins are made and then retained throughout life, making them extremely stable proteins. Mammalian lens crystallins are divided into alpha, beta, and gamma families; beta and gamma crystallins are also considered as a superfamily. Alpha and beta families are further divided into acidic and basic groups. Seven protein regions exist in crystallins: four homologous motifs, a connecting peptide, and N- and C-terminal extensions. Beta-crystallins, the most heterogeneous, differ by the presence of the C-terminal extension (present in the basic group, none in the acidic group). Beta-crystallins form aggregates of different sizes and are able to self-associate to form dimers or to form heterodimers with other beta-crystallins. This gene, a beta basic group member, undergoes extensive cleavage at its N-terminal extension during lens maturation. It is also a

member of a gene cluster with beta-A4, beta-B2, and beta-B3.

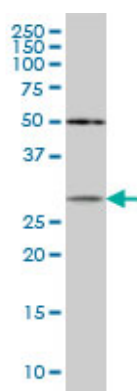
References

Truncated human betaB1-crystallin shows altered structural properties and interaction with human betaA3-crystallin. Srivastava K, et al. *Biochemistry*, 2009 Aug 4. PMID 19548648. Lens aging: effects of crystallins. Sharma KK, et al. *Biochim Biophys Acta*, 2009 Oct. PMID 19463898. Initiation codon mutation in betaB1-crystallin (CRYBB1) associated with autosomal recessive nuclear pulverulent cataract. Meyer E, et al. *Mol Vis*, 2009 May 18. PMID 19461930. Deamidation alters interactions of beta-crystallins in hetero-oligomers. Takata T, et al. *Mol Vis*, 2009. PMID 19190732. Disulfide cross-links in the interaction of a cataract-linked alphaA-crystallin mutant with betaB1-crystallin. Kumar MS, et al. *FEBS Lett*, 2009 Jan 5. PMID 19071118.

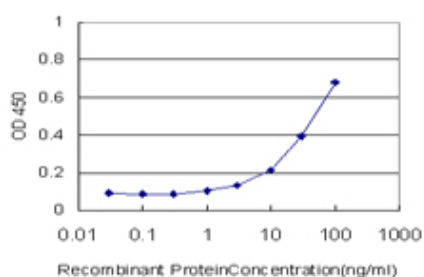
Images



Antibody Reactive Against Recombinant Protein. Western Blot detection against Immunogen (36.85 KDa) .



CRYBB1 monoclonal antibody (M03), clone 3D9 Western Blot analysis of CRYBB1 expression in MCF-7 (Cat # AT1643a)



Detection limit for recombinant GST tagged CRYBB1 is approximately 3ng/ml as a capture antibody.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.