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Product datasheet for CF500582

Alpha B Crystallin (CRYAB) Mouse Monoclonal Antibody [Clone ID: OTI4A6]

Product data:

Product Type:	Primary Antibodies
Clone Name:	OTI4A6
Applications:	FC, IF, IHC, IP, WB
Recommended Dilution:	WB 1:1000, IHC 1:50, IF 1:50~100, FLOW 1:100, IP 2ug/500ul
Reactivity:	Human, Mouse, Rat
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Full length human recombinant protein of human CRYAB (NP_001876) produced in HEK293T cell.
Formulation:	Lyophilized powder (original buffer 1X PBS, pH 7.3, 8% trehalose)
Reconstitution Method:	For reconstitution, we recommend adding 100uL distilled water to a final antibody concentration of about 1 mg/mL. To use this carrier-free antibody for conjugation experiment, we strongly recommend performing another round of desalting process. (OriGene recommends Zeba Spin Desalting Columns, 7KMWCO from Thermo Scientific)
Purification:	Purified from mouse ascites fluids or tissue culture supernatant by affinity chromatography (protein A/G)
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	20 kDa
Gene Name:	crystallin alpha B
Database Link:	NP_001876 Entrez Gene 12955 MouseEntrez Gene 25420 RatEntrez Gene 1410 Human P02511

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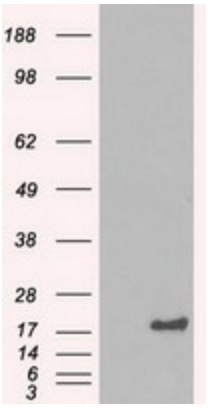
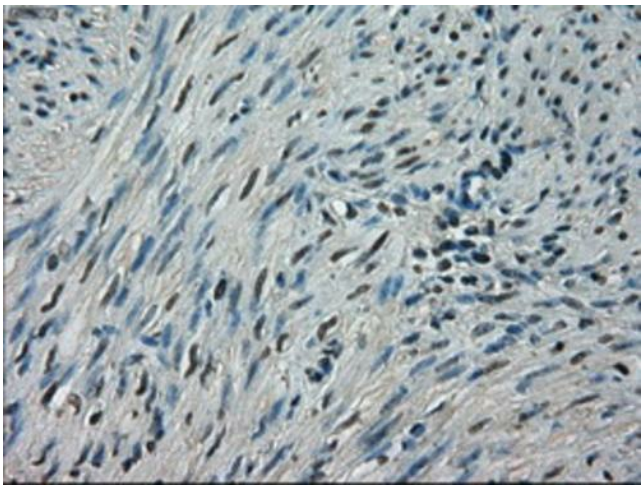
Background: Crystallins are separated into two classes: taxon-specific, or enzyme, and ubiquitous. The latter class constitutes the major proteins of vertebrate eye lens and maintains the transparency and refractive index of the lens. Since lens central fiber cells lose their nuclei during development, 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. Alpha crystallins are composed of two gene products: alpha-A and alpha-B, for acidic and basic, respectively. Alpha crystallins can be induced by heat shock and are members of the small heat shock protein (sHSP also known as the HSP20) family. They act as molecular chaperones although they do not renature proteins and release them in the fashion of a true chaperone; instead they hold them in large soluble aggregates. Post-translational modifications decrease the ability to chaperone. These heterogeneous aggregates consist of 30-40 subunits; the alpha-A and alpha-B subunits have a 3:1 ratio, respectively. Two additional functions of alpha crystallins are an autokinase activity and participation in the intracellular architecture. Alpha-A and alpha-B gene products are differentially expressed; alpha-A is preferentially restricted to the lens and alpha-B is expressed widely in many tissues and organs. Elevated expression of alpha-B crystallin occurs in many neurological diseases; a missense mutation cosegregated in a family with a desmin-related myopathy. [provided by RefSeq]

Synonyms: CMD1II; CRYA2; CTPP2; CTRCT16; HEL-S-101; HSPB5; MFM2

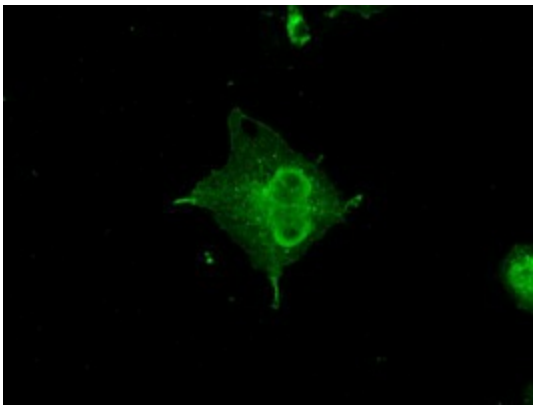
Product images:



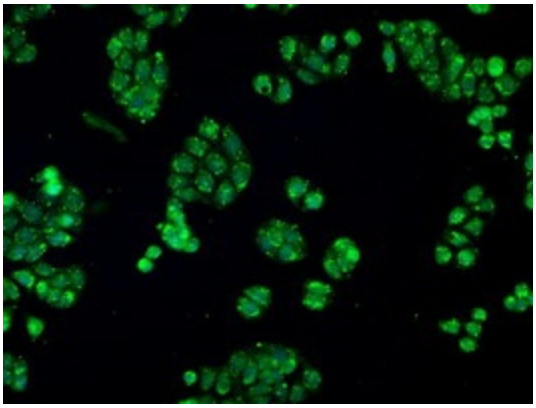
HEK293T cells were transfected with the pCMV6-ENTRY control (Left lane) or pCMV6-ENTRY CRYAB ([RC202718], Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-CRYAB. Positive lysates [LY419682] (100ug) and [LC419682] (20ug) can be purchased separately from OriGene.



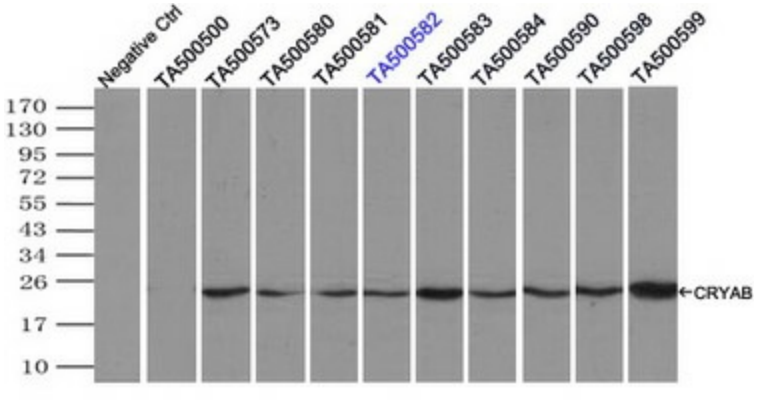
Immunohistochemical staining of paraffin-embedded Human endometrium tissue within the normal limits using anti-CRYAB mouse monoclonal antibody. (Heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 100°C for 10min, [TA500582])



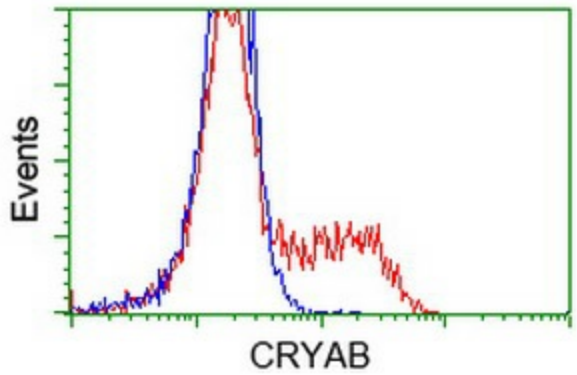
Anti-CRYAB mouse monoclonal antibody ([TA500582]) immunofluorescent staining of COS7 cells transiently transfected by pCMV6-ENTRY CRYAB ([RC202718]).



Immunofluorescent staining of HT29 cells using anti-CRYAB mouse monoclonal antibody ([TA500582]).



Immunoprecipitation (IP) of CRYAB by using TrueMab monoclonal anti-CRYAB antibodies (Negative control: IP without adding anti-CRYAB antibody.). For each experiment, 500ul of DDK tagged CRYAB overexpression lysates (at 1:5 dilution with HEK293T lysate), 2ug of anti-CRYAB antibody and 20ul (0.1mg) of goat anti-mouse conjugated magnetic beads were mixed and incubated overnight. After extensive wash to remove any non-specific binding, the immuno-precipitated products were analyzed with rabbit anti-DDK polyclonal antibody.



HEK293T cells transfected with either [RC202718] overexpress plasmid (Red) or empty vector control plasmid (Blue) were immunostained by anti-CRYAB antibody ([TA500582]), and then analyzed by flow cytometry.