# Anti-CRYAB antibody

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| **Cat. No.** | ml221590 |
| **Package** | 25 μl/100 μl/200 μl |
| **Storage** | -20°C, pH7.4 PBS, 0.05% NaN3, 40% Glycerol |

**Product overview**

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| **Description** | Anti-CRYAB rabbit polyclonal antibody |
| **Applications** | ELISA, WB, IHC |
| **Immunogen** | Fusion protein of human CRYAB |
| **Reactivity** | Human, Mouse, Rat |
| **Content** | 0.2 mg/ml |
| **Host species** | Rabbit |
| **Ig class** | Immunogen-specific rabbit IgG |
| **Purification** | Antigen affinity purification |

**Target information**

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| **Symbol** | CRYAB |
| **Full name** | crystallin, alpha B |

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| **Synonyms** | CRYA2; CTPP2; HSPB5; CMD1II |
| **Swissprot** | P02511 |

**Target 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.

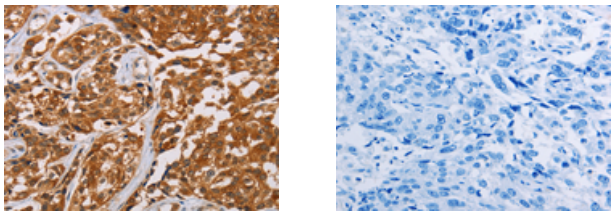
**Applications**

**Immunohistochemistry**

Predicted cell location: Cytoplasm

Positive control: Human esophagus cancer

Recommended dilution: 25-100



The image on the left is immunohistochemistry of paraffin-embedded Human esophagus cancer tissue using ml221590(CRYAB Antibody) at dilution 1/20, on the right is treated with fusion protein. (Original magnification: ×200)

**Western blotting**

Predicted band size:20 kDa

Positive control:Mouse heart and human chromaffin cells tumor tissue, mouse muscle tissue

Recommended dilution: 500-2000

Gel: 12%SDS-PAGE

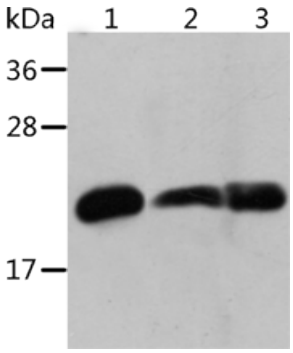
Lysate: 40 μg

Lane 1-3: Mouse heart tissue, human chromaffin cell tumor tissue, mouse muscle tissue

Primary antibody: ml221590(CRYAB Antibody) at dilution 1/500

Secondary antibody: Goat anti rabbit IgG at 1/8000 dilution

Exposure time: 1 minute




**ELISA**

Recommended dilution: 2000-5000

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