

Product datasheet for **TA323096S**

Alpha B Crystallin (CRYAB) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IHC, WB
Recommended Dilution:	WB: 500-2000 WB positive control: Mouse heart and human chromaffin cells tumor tissue, mouse muscle tissue IHC: 50-200 Positive control: Human esophagus cancer Predicted cell location: Cytoplasm
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	Full length fusion protein
Formulation:	PBS pH7.3, 0.05% NaN ₃ , 50% glycerol
Purification:	Antigen affinity purification
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 Mouse Entrez Gene 25420 Rat Entrez Gene 1410 Human P02511



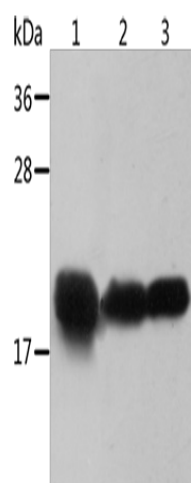
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Background:

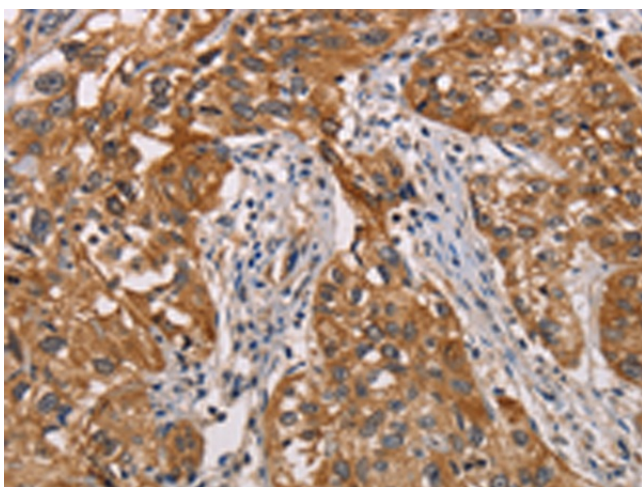
Crystallins are separated into two classes: taxon-specific, or enzyme, and ubiquitous. The latter class constitutes the major proteins of vertebrate eye lens and maintains the transparency and refractive index of the lens. Since lens central fiber cells lose their nuclei during development, these crystallins 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.

Synonyms:

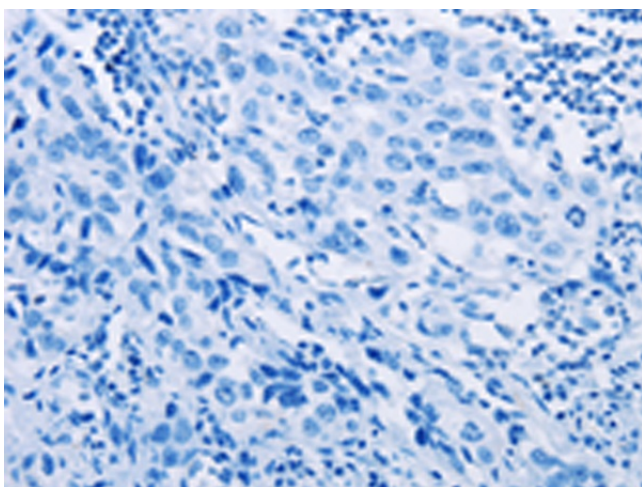
CMD11I; CRYA2; CTPP2; CTRCT16; HEL-S-101; HSPB5; MFM2

Product images:

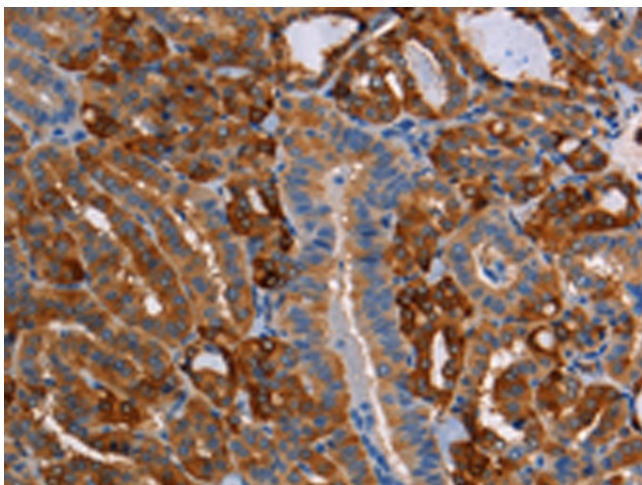
Gel: 12%SDS-PAGE
Lysate: 40 µg
Lane 1-3: Mouse heart tissue
human chromaffin cell tumor tissue
mouse muscle tissue
Primary antibody: [TA323096] (CRYAB Antibody)
at dilution 1/500
Secondary antibody: Goat anti rabbit IgG at
1/8000 dilution
Exposure time: 1 minute



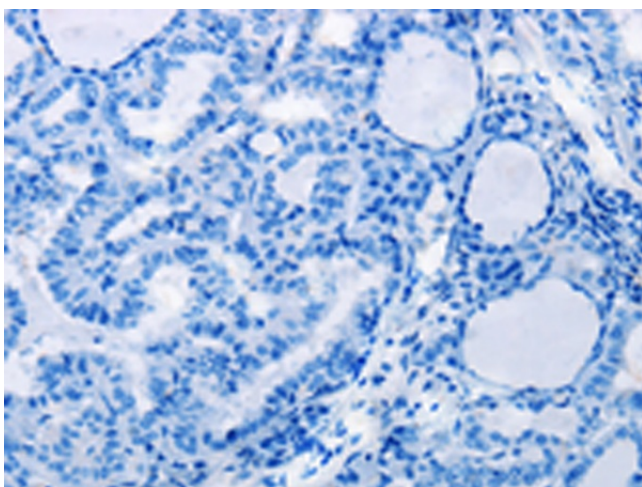
Immunohistochemistry of paraffin-embedded Human esophagus cancer tissue using [TA323096] (CRYAB Antibody) at dilution 1/25 (Original magnification: $\times 200$)



Immunohistochemistry of paraffin-embedded Human esophagus cancer tissue using [TA323096] (CRYAB Antibody) at dilution 1/25, treated with fusion protein. (Original magnification: $\times 200$)



Immunohistochemistry of paraffin-embedded Human thyroid cancer tissue using [TA323096] (CRYAB Antibody) at dilution 1/25 (Original magnification: $\times 200$)



Immunohistochemistry of paraffin-embedded Human thyroid cancer tissue using [TA323096] (CRYAB Antibody) at dilution 1/25, treated with fusion protein. (Original magnification: ×200)