



CRYAA Monoclonal Antibody

Catalog No	YP-mAb-05064
Isotype	IgG
Reactivity	Human;Mouse;Rat
Applications	WB
Gene Name	CRYAA CRYA1 HSPB4
Immunogen	Synthesized peptide derived from human protein . at AA range: 1-80
Specificity	CRYAA Monoclonal Antibody detects endogenous levels of protein.
Formulation	Liquid in PBS containing 50% glycerol, and 0.02% sodium azide.
Source	Monoclonal, Mouse,IgG
Purification	The antibody was affinity-purified from mouse antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	WB 1:500-1:2000
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	CRYA1;HSPB4;CRYAA;CRYAA CRYA1 HSPB4;Alpha-crystallin A chain (Heat shock protein beta-4) (HspB4) [Cleaved into: Alpha-crystallin A chain;short form]; short form]
Observed Band	19kD
Calculated Molecular Weight	19kD
Cell Pathway	Cytoplasm . Nucleus . Translocates to the nucleus during heat shock and resides in sub-nuclear structures known as SC35 speckles or nuclear splicing speckles.
Tissue Specificity	Expressed in the eye lens (at protein level).
Function	disease:Crystallins do not turn over as the lens ages, providing ample opportunity for post-translational modifications or oxidations. These modifications may change crystallin solubility properties and favor senile cataract..disease:Defects in CRYAA are the cause of zonular central nuclear cataract [MIM:123580, 604219]; one of a considerable number of phenotypically and genotypically distinct forms of autosomal dominant cataract. This congenital cataract is a common major abnormality of the eye that frequently cause blindness in infants..function:May contribute to the transparency and refractive index of the lens..mass spectrometry: PubMed:10930324,mass spectrometry:



PubMed:8175657,mass spectrometry: PubMed:9655350,mass spectrometry:With 1 phosphate group PubMed:8175657,PTM:Deamidation of Asn-101 in lens occurs mostly during the first 30 years of age, followed by a small additional amou

Background

Mammalian lens crystallins are divided into alpha, beta, and gamma families. 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 (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. The encoded protein has been identified as a moonlighting protein based on its ability to perform mechanistically distin

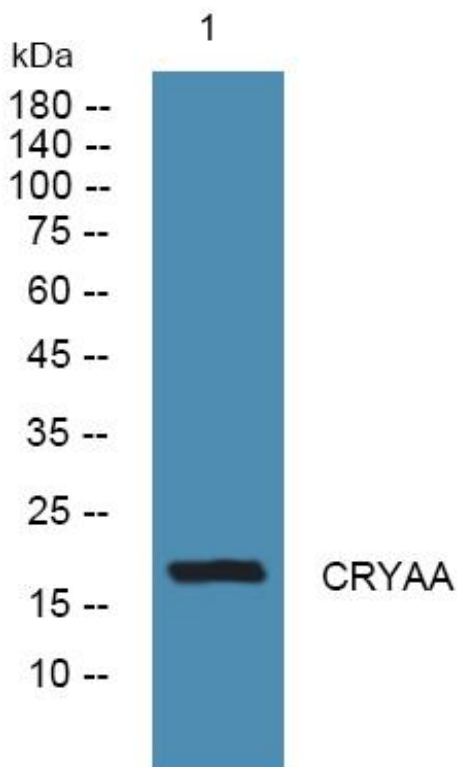
matters needing attention

Avoid repeated freezing and thawing!

Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

Products Images



Western Blot analysis of various cells using CRYAA Monoclonal Antibody