

## 热休克蛋白 $\beta$ 4 抗体

产品货号： mIR17708

英文名称： HSPB4/Alpha A Crystallin

中文名称： 热休克蛋白  $\beta$  4 抗体

别名： Acry 1; Alpha crystallin A chain; Alpha-crystallin A chain; CRYA 1; CRYA1; CRYAA; CRYAA\_HUMAN; Crystallin Alpha 1; Crystallin alpha A; Heat shock protein beta 4; Heat shock protein beta-4; HSPB 4; HspB4; short form; Zonular Central Nuclear Cataract.

研究领域： 细胞生物 免疫学 信号转导 细胞类型标志物

抗体来源： Rabbit

克隆类型： Polyclonal

交叉反应： Human, Mouse, Rat, Dog, Pig, Cow, Rabbit, Sheep,

产品应用： ELISA=1:500-1000 IHC-P=1:400-800 IHC-F=1:400-800 ICC=1:100-500 IF=1:100-500 （石蜡切片需

做抗原修复)

not yet tested in other applications.

optimal dilutions/concentrations should be determined by the end user.

分 子 量 : 20kDa

细胞定位 : 细胞核 细胞浆

性 状 : Lyophilized or Liquid

浓 度 : 1mg/ml

免 疫 原 : KLH conjugated synthetic peptide derived from human HSPB4/Alpha A Crystallin:81-173/173

亚 型 : IgG

纯化方法 : affinity purified by Protein A

储 存 液 : 0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.

保存条件 : Store at -20 ° C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20° C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 ° C.

**PubMed :** PubMed

**产品介绍 :** 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 distinct functions. 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. Defects in this gene cause autosomal dominant congenital cataract (ADCC). [provided by RefSeq, Jan 2014]

**Function:**

May contribute to the transparency and refractive index of the lens.

**Subunit:**

Heteropolymer composed of three CRYAA and one CRYAB subunits. Inter-subunit bridging via zinc ions enhances stability, which is crucial as there is no protein turn over in the lens. Can also form homodimers and higher homooligomers. Age-dependent C-terminal truncation affects oligomerization.

**Subcellular Location:**

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 eye lens.

**Post-translational modifications:**

O-glycosylated; contains N-acetylglucosamine side chains.

Deamidation of Asn-101 in lens occurs mostly during the first 30 years of age, followed by a small additional amount of deamidation (approximately 5%) during the next approximately 38 years, resulting in a maximum of approximately 50% deamidation during the lifetime of the individual.

Phosphorylation on Ser-122 seems to be developmentally regulated. Absent in the first months of life, it appears during the first 12 years of human lifetime. The relative amount of phosphorylated form versus unphosphorylated form does not change over the lifetime of the individual.

**DISEASE:**

Defects in CRYAA are a cause of cataract autosomal dominant (ADC) [MIM:604219]. Cataract is an opacification of the crystalline lens of the eye that frequently results in visual impairment or blindness. Opacities vary in morphology, are often confined to a portion of the lens, and may be static or progressive. In general, the more posteriorly located and dense an opacity, the greater the impact on visual function. Cataract is the most common treatable cause of visual disability in childhood.

**Similarity:**

Belongs to the small heat shock protein (HSP20) family.

**SWISS:**

P02489

**Gene ID:**

1409

**Important Note:**

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.