

Product datasheet

Recombinant Human alpha A Crystallin protein ab113189

[2 Images](#)

Overview

Product name	Recombinant Human alpha A Crystallin protein
Protein length	Full length protein

Description

Nature	Recombinant
Source	Escherichia coli

Amino Acid Sequence

Accession	P02489
Species	Human
Molecular weight	20 kDa including tags
Amino acids	1 to 173
Tags	His tag N-Terminus

Specifications

Our [Abpromise guarantee](#) covers the use of **ab113189** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications	Western blot SDS-PAGE
Purity	> 95 % SDS-PAGE. ab113189 is purified by multi-step chromatography.
Form	Liquid

Preparation and Storage

Stability and Storage	Shipped on dry ice. Upon delivery aliquot and store at -80°C. Avoid freeze / thaw cycles. pH: 7.50 Constituents: 0.61% Tris, 0.08% DTT, 0.29% Sodium chloride
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General Info

Function

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

Involvement in 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.

Sequence similarities

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

Post-translational modifications

O-glycosylated; contains N-acetylglucosamine side chains.

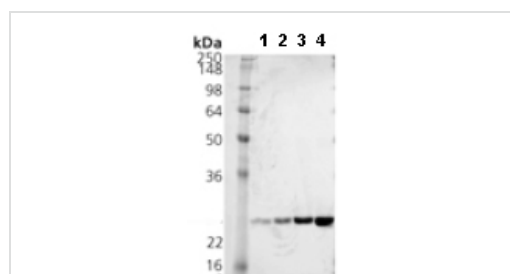
Deamidation of Asn-101 in lens occurs mostly during the first 30 years of age, followed by a small additional amount of deamidation (approximately 5%) during the next approximately 38 years, resulting in a maximum of approximately 50% deamidation during the lifetime of the individual.

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.

Cellular localization

Cytoplasm. Nucleus. Translocates to the nucleus during heat shock and resides in sub-nuclear structures known as SC35 speckles or nuclear splicing speckles.

Images



SDS-PAGE - alpha A Crystallin protein (ab113189)

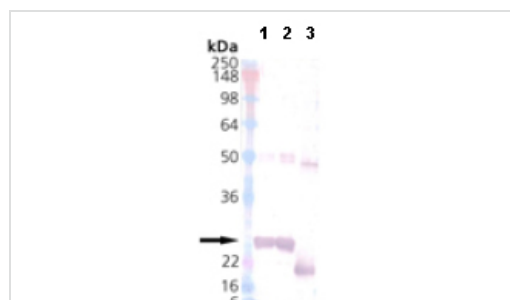
SDS-PAGE showing ab113189

Lane 1: 0.5µg protein

Lane 2: 1.0µg protein

Lane 3: 2.0µg protein

Lane 4: 4.0µg protein



Western blot - alpha A Crystallin protein (ab113189)

All lanes : anti-alpha A Crystallin pAb

Lane 1 : Recombinant Human alpha A Crystallin protein (ab113189) at 0.1 µg

Lane 2 : Recombinant Human alpha A Crystallin protein (ab113189) at 0.2 µg

Lane 3 : Native Cow alpha A Crystallin protein

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