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# Recombinant human Crystallin alpha A/CRYAA protein

Catalog Number: CRA3001

#### PRODUCT INFORMATION

## **Expression system**

E.coli

#### **Domain**

1-173aa

#### UniProt No.

P02489

#### **NCBI Accession No.**

NP 000385.1

#### **Alternative Names**

Acry-1, Alpha crystallin A chain, CRYA1, CRYAA, Crystallin alpha 1, Crystallin alpha A, Heat shock protein beta 4, HSPB 4, HspB4, Zonular Central Nuclear Cataract

### PRODUCT SPECIFICATION

# **Molecular Weight**

19.9 kDa (173aa)

#### Concentration

1mg/ml (determined by Bradford assay)

#### **Formulation**

Liquid in. 20mM Tris-HCl buffer (pH 7.5) containing 50mM NaCl, 1mM EDTA

#### **Purity**

> 90% by SDS-PAGE

#### Tag

Non-Tagged

# **Application**

SDS-PAGE

#### **Storage Condition**

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

### **BACKGROUND**

# Description

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). They act as molecular chaperones and hold them in large soluble aggregates. These heterogeneous aggregates consist of 30-40 subunits; the alpha-A and alpha-B subunits have a 3:1 ratio, respectively. Two additional function of alpha-crystallins are an autokinase activity and participation in the



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intracellular architecture. The expression of alpha-A is preferentially restricted to the lens cell.

# **Amino acid Sequence**

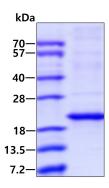
MDVTIQHPWF KRTLGPFYPS RLFDQFFGEG LFEYDLLPFL SSTISPYYRQ SLFRTVLDSG ISEVRSDRDK FVIFLDVKHF SPEDLTVKVQ DDFVEIHGKH NERQDDHGYI SREFHRRYRL PSNVDQSALS CSLSADGMLT FCGPKIQTGL DATHAERAIP VSREEKPTSA PSS

#### **General References**

Hasan, A., et al.(2002) Biochemistry 41(52) 15876-15882 Bera, S., et al(2002) Biochemistry 41(41) 12421-12426 Reddy, G.B., et al(2002) FEBS lett. 522(1-3) 59-64 Andley, u.P., et al(2002) J.Biol.Chem.277(12) 10178-10186

# **DATA**

#### **SDS-PAGE**



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.

