# **PRODUCT INFORMATION**

Expression system E.coli

**Domain** 1-175aa

**UniProt No.** P02511

NCBI Accession No. NP\_001876.1

### **Alternative Names**

CRYAB, CRYA2, CRYAB (Crystallin alpha B), Rosenthal fiber component, Heat shock protein beta-5, HspB5, Renal carcinoma antigen NY-REN-27, Alpha crystallin B chain, AACRYA, Alpha(B) crystallin, Crystallin alpha polypeptide 2, CTPP 2, CTPP2, Heat shock 20 kD like protein, Heat shock protein beta 5, NY REN 27 antigen, Renal carcinoma antigen NY REN 27,

# **PRODUCT SPECIFICATION**

# Molecular Weight

20.1 kDa (175aa)

**Concentration** 1mg/ml (determined by Bradford assay)

### Formulation

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

### Purity

> 95% 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 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 intracellular architecture. Alpha-B is expressed widely in many tissues and organs and occurs in many neurological diseases.

#### Amino acid Sequence

MDIAIHHPWI RRPFFPFHSP SRLFDQFFGE HLLESDLFPT STSLSPFYLR PPSFLRAPSW FDTGLSEMRL EKDRFSVNLD VKHFSPEELK VKVLGDVIEV HGKHEERQDE HGFISREFHR KYRIPADVDP LTITSSLSSD GVLTVNGPRK QVSGPERTIP ITREEKPAVT AAPKK

### **General References**

Hasan, A., et al.(2002) Biochemistry 41(52) 15876-15882 Kamradt,M.C., et al(2002) J. Biol.Chem. 277(41) 38731-38736 Reddy, G.B., et al(2002) FEBS lett. 522(1-3) 59-64 Ito, H., et al(2002) J.Biochem.131(4) 593-603

### DATA

#### **SDS-PAGE**



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