

## Recombinant Human Crystallin Alpha B

**Cat. No.** CRYAB-310H    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Recombinant Human CRYA2 protein expressed in E.coli encodes 175 (1-175) amino acids and has a molecular mass of 20.1 kDa.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>ProteinLength</b>    | 1-175 a.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Description</b>      | 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 intracellular architecture. Alpha-B is expressed widely in many tissues and organs and occurs in many neurological diseases. |
| <b>Formulation</b>      | Liquid. In 20 mM Tris-HCl buffer (pH 7.5) containing 50 mM NaCl, 1 mM EDTA.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Molecular Weight</b> | 20.1 kDa (175aa).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Purity</b>           | > 95% by SDS – PAGE.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

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|                            |                                                                                                                                                                                                                                                    |
|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Concentration</b>       | 1 mg/ml (determined by Bradford assay).                                                                                                                                                                                                            |
| <b>Sequence</b>            | MDIAIHHPWI RRPFFPFHSP SRLFDQFFGE HLLESDLFPT STSLSPFYLR<br>PPSFLRAPSW FDTGLSEMRL EKDRFSVNLD VKHFSPEELK VKVLGDVIEV<br>HGKHEERQDE HGFISREFHR KYRIPADVDP LTITSSLSSD GVLTVNGPRK<br>QVSGPERTIP ITREEKPAVT AAPKK                                          |
| <b>Storage</b>             | Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.                                                                                              |
| <b>GENE INFORMATION</b>    |                                                                                                                                                                                                                                                    |
| <b>Gene Name</b>           | CRYAB                                                                                                                                                                                                                                              |
| <b>Synonyms</b>            | CRYAB; crystallin, alpha B; CRYA2; CTPP2; HSPB5; HspB5; Alpha(B)-crystallin; alpha B crystallin; Heat shock protein beta-5; Renal carcinoma antigen NY-REN-27; Rosenthal fiber component; alpha crystallin B chain; heat-shock 20 kD like-protein. |
| <b>Gene ID</b>             | 1410                                                                                                                                                                                                                                               |
| <b>mRNA Refseq</b>         | NM_001885.1                                                                                                                                                                                                                                        |
| <b>Protein Refseq</b>      | NP_001876.1                                                                                                                                                                                                                                        |
| <b>MIM</b>                 | 123590                                                                                                                                                                                                                                             |
| <b>UniProt ID</b>          | P02511                                                                                                                                                                                                                                             |
| <b>Chromosome Location</b> | 11q22.3-q23.1                                                                                                                                                                                                                                      |

**Function**

structural constituent of eye lens; unfolded protein binding.

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