# Recombinant CRYAB protein (His tag)

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| **Catalog Number** | 537410 |
| **Synonyms** | Alpha(B)-crystallin; Heat shock protein beta-5; HspB5; Heat shock protein family B member 5; Renal carcinoma antigen NY-REN-27; Rosenthal fiber component |
| **Species** | Human |
| **Expression System** | E. coli |
| **Accession** | P02511 |
| **Molecular Weight** | Predictes a molecular mass of 14.12 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 15 kDa band. |

## Product Information

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| **Sequence Region** | 66-175 |
| **Form** | Lyophilized powder |
| **Formulation** | Lyophilized from sterile PBS, pH 7.4 |
| **Purity** | >87%, by SDS-PAGE with Coomassie Brilliant Blue staining. |
| **Endotoxin** | Not tested. |
| **Activity** | Not tested. |
| **Stability** | Samples are stable for up to twelve months from date of receipt at -70℃ |
| **Protein Construction** | DNA encoding 66-175 aa (P02511) were fused with 6His tag. |

## Storage & Handling

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| **Reconstitution** | Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution. |
| **Storage** | Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles. |
| **Shipping** | In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature.<br>Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise. |

## Description

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| **Description** | Recombinant human Alpha-crystallin B chain fragment (residues 66-175) is a high-purity protein designed for structural and biochemical studies. This 110-amino acid fragment retains key solubility and stability properties, making it ideal for investigating the chaperone-like activity and stress-response functions of the full-length protein in controlled experimental settings.<br>Alpha-crystallin B chain (CRYAB), also known as heat shock protein beta-5 (HspB5), functions as a molecular chaperone that prevents protein aggregation under various stress conditions and contributes to lens transparency. It localizes primarily to the cytoplasm but can translocate to the nucleus during heat shock and is also found in lysosomes and secreted via the ERGIC pathway. The protein stabilizes other proteins, such as ATP6V1A, and is implicated in cellular stress resilience, making it a significant target for research in protein homeostasis and disease mechanisms. |