

## Recombinant Human CRYAA Protein, GST-tagged

Cat. No. CRYAA-1925H    Lot. No. (See product label)

### SPECIFICATION

|                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product Overview | Human CRYAA full-length ORF ( NP_000385.1, 1 a.a. - 173 a.a.) recombinant protein with GST-tag at N-terminal.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Species          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Source           | Wheat Germ                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Description      | <p>Mammalian lens crystallins are divided into alpha, beta, and gamma families. 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 (HSP20) family. They act as molecular chaperones although they do not renature proteins and release them in the fashion of a true chaperone; instead they hold them in large soluble aggregates. Post-translational modifications decrease the ability to chaperone. These heterogeneous aggregates consist of 30-40 subunits; the alpha-A and alpha-B subunits have a 3:1 ratio, respectively. Two additional functions of alpha crystallins are an autokinase activity and participation in the intracellular architecture. The encoded protein has been identified as a moonlighting protein based on its ability to perform mechanistically distinct functions. Alpha-A and alpha-B gene products are differentially expressed; alpha-A is preferentially restricted to the lens and alpha-B is expressed widely in many tissues and organs. Defects in this gene cause autosomal dominant congenital cataract (ADCC). [provided by RefSeq, Jan 2014]</p> |
| Molecular Mass   | 46.3 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

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|                       |                                                                                                                                                                                              |
|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>AA Sequence</b>    | MDVTIQHPWFKRTLGPFPYPSRLFDQFFGEGLF EYDLLPFLSSTISPYRQSLFRTVLD<br>SGISEVRSDRDKFVIFLDVKHFSPEDLTVKVQDDFVEIHGKHNERQDDHGYISREFH<br>RRYRLPSNVDQSALSCSL SADGMLTFCGPKIQ TGLDATHAERAIPVSREEKPTSAPS<br>S |
| <b>Applications</b>   | Enzyme-linked Immunoabsorbent Assay<br>Western Blot (Recombinant protein)<br>Antibody Production<br>Protein Array                                                                            |
| <b>Notes</b>          | Best use within three months from the date of receipt of this protein.                                                                                                                       |
| <b>Storage</b>        | Store at -80 centigrade. Aliquot to avoid repeated freezing and thawing.                                                                                                                     |
| <b>Storage Buffer</b> | 50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0 in the elution buffer.                                                                                                                     |

## GENE INFORMATION

|                        |                                                                                                                                                      |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>       | CRYAA crystallin, alpha A [ Homo sapiens ]                                                                                                           |
| <b>Official Symbol</b> | CRYAA                                                                                                                                                |
| <b>Synonyms</b>        | CRYAA; crystallin, alpha A; CRYA1; alpha-crystallin A chain; HSPB4; crystallin, alpha-1; heat shock protein beta-4; human alphaA-crystallin (CRYA1); |
| <b>Gene ID</b>         | 1409                                                                                                                                                 |
| <b>mRNA Refseq</b>     | NM_000394                                                                                                                                            |
| <b>Protein Refseq</b>  | NP_000385                                                                                                                                            |

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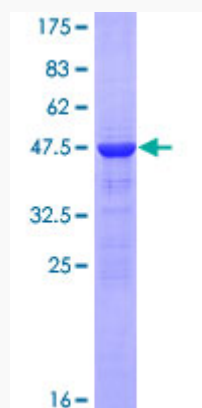
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MIM 123580

UniProt ID P02489

Quality Control  
Testing:



12.5% SDS-PAGE Stained with Coomassie Blue.

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