

Recombinant Full Length Human CRYAA Protein, GST-tagged

Cat. No. CRYAA-2127HF 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 In Vitro Cell Free System

ProteinLength 173 amino acids

Description

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]

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Molecular Mass	46.3 kDa
AA Sequence	MDVTIQHPWFKRTLGPFYPSRLFDQFFGEGLEFYDLLPFLSSTISPYRQSLFRTVLD SGISEVRSRDRDKFVIFLDVKHFSPEDLTVKVKQDDFVEIHGKHNERQDDHGYISREFH RRYRLPSNVDQSALSCLSADGMLTFCGPKIQTGLDATHAERAIPVSREEKPTSAPS S
Applications	Enzyme-linked Immunoabsorbent Assay Western Blot (Recombinant protein) Antibody Production Protein Array
Notes	Best use within three months from the date of receipt of this protein.
Storage	Store at -80 centigrade. Aliquot to avoid repeated freezing and thawing.
Storage Buffer	50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0 in the elution buffer.

GENE INFORMATION

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

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Protein Refseq	NP_000385
MIM	123580
UniProt ID	P02489

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