

Product datasheet for PH316946

alpha A Crystallin (CRYAA) (NM_000394) Human Mass Spec Standard

Product data:

Product Type:	Mass Spec Standards
Description:	CRYAA MS Standard C13 and N15-labeled recombinant protein (NP_000385)
Species:	Human
Expression Host:	HEK293
Expression cDNA Clone or AA Sequence:	RC216946
Predicted MW:	19.9 kDa
Protein Sequence:	>RC216946 protein sequence Red=Cloning site Green=Tags(s) MDVTIQHPWFKRTLGPFYPSRLFQDFEGEGLFEYDLLPFLSSTISPYRQSLFRTVLDSGISEVRSRDRK FVIFLDVKHFSPEDLTVKVQDDFVEIHGKHNERQDDHGYISREFHRRYRLPSNVDQSALSCSLSDGMLT FCGPKIQTGLDATHAERAIPVSREEKPTSAPSS TRTRPLEQKLI SEEDLAANDILDYKDDDDKV
Tag:	C-Myc/DDK
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Labeling Method:	Labeled with [U- ¹³ C ₆ , ¹⁵ N ₄]-L-Arginine and [U- ¹³ C ₆ , ¹⁵ N ₂]-L-Lysine
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3
Storage:	Store at -80°C. Avoid repeated freeze-thaw cycles.
Stability:	Stable for 3 months from receipt of products under proper storage and handling conditions.
RefSeq:	NP_000385
RefSeq Size:	1162
RefSeq ORF:	519
Synonyms:	CRYA1; CTRCT9; HSPB4
Locus ID:	1409
UniProt ID:	P02489 , A0A140G945

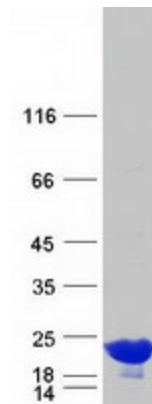


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Cytogenetics: 21q22.3

Summary: 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]

Product images:



Coomassie blue staining of purified CRYAA protein (Cat# [TP316946]). The protein was produced from HEK293T cells transfected with CRYAA cDNA clone (Cat# [RC216946]) using MegaTran 2.0 (Cat# [TT210002]).