

## Product datasheet for **TP316946L**

### alpha A Crystallin (CRYAA) (NM\_000394) Human Recombinant Protein

#### Product data:

**Product Type:** Recombinant Proteins

**Description:** Recombinant protein of human crystallin, alpha A (CRYAA), 1 mg

**Species:** Human

**Expression Host:** HEK293T

**Expression cDNA Clone or AA Sequence:** >RC216946 protein sequence  
**Red**=Cloning site **Green**=Tags(s)

MDVTIQHPWFKRTLGPFPYPSRLFDQFFGEGLEFYDLLPFLSSTISPYRQSLFRTVLDSGISEVRSRDK  
FVIFLDVKHFSPEDLTVKVQDDFVEIHGKHNERQDDHGYSISREFHRRYRLPSNVDQSALSCSLADGMLT  
FCGPKIQTGLDATHAERAIPVSREEKPTSAPSS

**TRTRPLEQKLISEEDLAANDILDYKDDDDKV**

**Tag:** C-Myc/DDK

**Predicted MW:** 19.7 kDa

**Concentration:** >0.05 µg/µL as determined by microplate BCA method

**Purity:** > 80% as determined by SDS-PAGE and Coomassie blue staining

**Buffer:** 25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol

**Preparation:** Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.

**Note:** For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.

**Storage:** Store at -80°C.

**Stability:** Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.

**RefSeq:** [NP\\_000385](#)

**Locus ID:** 1409

**UniProt ID:** [P02489](#), [A0A140G945](#)

**RefSeq Size:** 1162

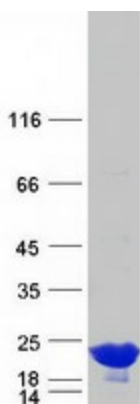


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Cytogenetics: 21q22.3  
RefSeq ORF: 519  
Synonyms: CRYA1; CTRCT9; HSPB4

**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]).