



Product Datasheet

Product Name	Crystallin Alpha A Human Recombinant
Cata No	CB500752
Source	<i>Escherichia Coli.</i>
Synonyms	CRYA1, HSPB4, CRYAA, Crystallin Alpha A, Alpha-crystallin A chain, Heat shock protein beta-4.

Description

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(sHSP also known as the HSP20). They act as molecular chaperones and hold them in large soluble aggregates. These heterogeneous aggregates consist of 30-40 subunits; the alpha-A and alpha-B subunits have a 3:1 ratio, respectively. Two additional function of a-crystallins are an autokinase activity and participation in the intracellular architecture. The expression of alpha-A is preferentially restricted to the lens cell. Recombinant Human CRYAA produced in E.Coli is a single, non-glycosylated polypeptide chain containing 173 amino acids and having a molecular mass of 19,909 Dalton. CRYAA is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered colorless solution.

Purity

Greater than 95.0% as determined by:

- (a) Analysis by RP-HPLC.
- (b) Analysis by SDS-PAGE.

Formulation

The CRYAA protein contains 20mM Tris-HCl buffer (pH 7.5), 50mM NaCl and 1mM EDTA.

Stability

Store at 4°C if entire vial will be used within 2-4 weeks.

Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).

Avoid multiple freeze-thaw cycles.

Sequence

MDVTIQHPWF KRTLGPFPYPS RLFDQFFGEG
LFEYDLLPFL SSTISPYRQ
SLFRTVLDSGISEVRSRDRK FVIFLDVKHF
SPEDLTVKVQ DDFVEIHGKH NERQDDHGYI
SREFHRRYRLPSNVDQSALS CSLSADGMLT
FCGPKIQTGL DATHAERAIP VSREEKPTSA PSS.