Recombinant CRYAA protein (His tag)

Catalog Number	544282
Synonyms	Heat shock protein beta-4; HspB4; Heat shock protein family B member 4; 1-172; 1-168; 1-162
Species	Human
Expression System	E. coli
Accession	P02489
Molecular Weight	Predictes a molecular mass of 14.45 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 16 kDa band.

Product Information

Sequence Region	61-173
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>86%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 61-173 aa (P02489) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant Alpha-crystallin A chain (CRYAA) fragment (residues 61-173), a stable and soluble unit derived from human Heat shock protein beta-4 (HspB4). This fragment is optimized for structural and biochemical studies, offering a reliable tool to investigate the chaperone activity and lens transparency functions of this critical protein. Alpha-crystallin A chain (CRYAA), also known as Heat shock protein beta-4 (HspB4), is essential for maintaining lens transparency and refractive index in humans. In its oxidized form, it functions as a molecular chaperone, preventing protein aggregation under diverse stress conditions. The protein is primarily cytoplasmic but translocates to nuclear splicing speckles during heat shock. It also plays a key role in lens intermediate filament formation through interactions with BFSP1 and BFSP2, highlighting its importance in cellular structure and stress response mechanisms.