



# Recombinant Human Beta-crystallin A3 (CRYBA1)

<b>Product Code</b>	CSB-YP006009HU
<b>Storage</b>	Store at -20°C, for extended storage, conserve at -20°C or -80°C.
<b>Uniprot No.</b>	P05813
<b>Product Type</b>	Recombinant Protein
<b>Immunogen Species</b>	Homo sapiens (Human)
<b>Purity</b>	≥85% (SDS-PAGE)
<b>Sequence</b>	METQAEQQEL ETLPTTKMAQ TNPTPGSLGP WKITIYDQEN FQGKRMEFTS SCPNVSERSF DNVRSLKVES GAWIGYEHTS FCGQQFILER GEYPRWDAWS GSNAYHIERL MSFRPICSAN HKESKMTIFE KENFIGRQWE ISDDYPSLQA MGWFNNEVGS MKIQSGAWVC YQYPGYRGYQ YILECDHHGG DYKHWREWGS HAQTSQIQSI RRIQQ
<b>Source</b>	Yeast
<b>Target Names</b>	CRYBA1
<b>Protein Names</b>	Recommended name: Beta-crystallin A3 Cleaved into the following 3 chains: 1. Beta-crystallin A3, isoform A1, Delta4 form 2. Beta-crystallin A3, isoform A1, Delta7 form 3. Beta-crystallin A3, isoform A1, Delta8 form
<b>Expression Region</b>	1-215
<b>Notes</b>	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
<b>Tag Info</b>	Tag type will be determined during the manufacturing process.
<b>Protein Length</b>	Full length protein
<b>Target Details</b>	Crystallins are separated into two classes: taxon-specific, or enzyme, and ubiquitous. The latter class constitutes the major proteins of vertebrate eye lens and maintains the transparency and refractive index of the lens. Since lens central fiber cells lose their nuclei during development, these crystallins are made and then retained throughout life, making them extremely stable proteins. Mammalian lens crystallins are divided into alpha, beta, and gamma families; beta and gamma crystallins are also considered as a superfamily. Alpha and beta families are further divided into acidic and basic groups. Seven protein regions exist in crystallins: four homologous motifs, a connecting peptide, and N- and C-terminal extensions. Beta-crystallins, the most heterogeneous, differ by the presence of the C-terminal extension (present in the basic group, none in the acidic group). Beta-crystallins form aggregates of different sizes and are able to self-associate to form dimers or to form heterodimers with other beta-crystallins. This gene, a beta acidic group member, encodes two proteins (crystallin, beta A3 and crystallin, beta A1) from a single mRNA, the latter protein is 17 aa shorter than crystallin, beta A3 and is generated by use of an alternate translation initiation site. Deletion of exons 3 and 4 causes the autosomal dominant disease zonular cataract with sutural opacities .



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**Reconstitution**

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

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**Shelf Life**

The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.