

## Product datasheet for **RG210125**

### CRYBB2 (NM\_000496) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** CRYBB2 (NM\_000496) Human Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** CRYBB2  
**Synonyms:** CCA2; CRYB2; CRYB2A; CTRCT3; D22S665  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >RG210125 representing NM\_000496  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGGCCTCAGATCACCAGACCCAGGCGGGCAAGCCACAGTCCCTCAACCCCAAGATCATCATCTTTGAGC  
 AGGAAACTTTCAAGGCACTCGCATGAGCTCAATGGGCCCTGCCCAACCTGAAGGAACTGGCGTGGA  
 GAAGGCAGTTCTGTCTAGTGCAGGCTGGACCTGGTGGGCTATGAACAGGCCAACTGCAAGGGCGAG  
 CAGTTTGTGTTGAGAAGGTGAGTACCCCGCTGGGACTCATGGACCAGCAGCCGAAGGACGGACTCCC  
 TCAGCTCCCTGAGGCCATCAAAGTGGACAGCCAAGAGACAAGATCATCCTCTATGAAAACCCCAACTT  
 CACCGGAAGAAGATGGAATCATAGATGACGATGTACCCAGCTTCCACGCCCATGGCTACCAGGAGAAG  
 GTGTCATCTGTGCGGGTGCAGAGTGGCAGTGGTGGCTACCAGTACCCCGCTACCGTGGGCTGCAGT  
 ACCTGCTGGAGAAGGAGACTACAAGGACAGCAGCGACTTTGGGGCCCTCACCCCAAGTGCAGTCCGT  
 GCGCCGTATCCGCACATGCAGTGGCACCACGTGGTGCCTTCCACCCCTCCAAC

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >RG210125 representing NM\_000496  
 Red=Cloning site Green=Tags(s)

MASDHQTQAGKPKQSLNPKIIIFEQENFQGSHELNGPCPNLKETGVEKAGSVLVQAGPWVGYEQANCKGE  
 QFVFEKGEYPRWDSWTSSRRDSSLRPIKVDSEHKIILYENPNFTGKKMEIIDDDVPSFHAHGYQEK  
 VSSVRVQSGTWVGYQYPGYRGLQYLLEKGDYKDSDFGAPHPQVQSVRRIRDMQWHQRGAFHPSN

**TRTRPLE** - GFP Tag - V

**Restriction Sites:** Sgfl-MluI



**Cloning Scheme:**


**ACCN:** NM\_000496

**ORF Size:** 615 bp

**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

**Reconstitution Method:**

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

**RefSeq:** [NM\\_000496.3](#)

**RefSeq Size:** 781 bp

**RefSeq ORF:** 618 bp

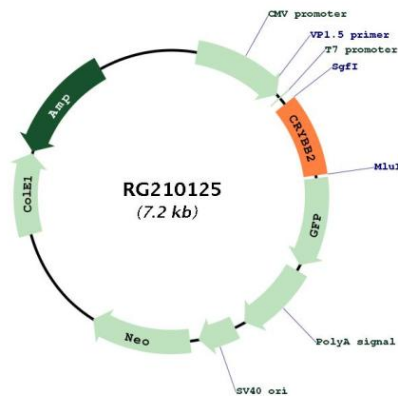
**Locus ID:** 1415

**UniProt ID:** [P43320](#)

**Cytogenetics:** 22q11.23

**Gene Summary:**

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 basic group member, is part of a gene cluster with beta-A4, beta-B1, and beta-B3. A chain-terminating mutation was found to cause type 2 cerulean cataracts. [provided by RefSeq, Jul 2008]

**Product images:**

Circular map for RG210125