

## Product datasheet for **RG216085**

### CRYBA2 (NM\_005209) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** CRYBA2 (NM\_005209) Human Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** CRYBA2  
**Synonyms:** crystallin, beta A2; eye lens structural protein  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >RG216085 representing NM\_005209  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGAGCAGCGCCCCGCGCCGGGCCCGCCAGCCTCACGCTCTGGGACGAGGAGGACTTCCAGG  
 GCCGTCGCTGTCGGCTGCTAAGCGACTGTGCGAACGTCTGCGAGCGGGAGGCCTGCCAGGGTGCCTC  
 GGTC AAGGTGAAAACGGCGTTTGGGTGGCCTTTGAGTACCCGACTTCCAGGGACAGCAGTTTATTCTG  
 GAGAAGGGAGACTATCCTCGCTGGAGCGCTGGAGTGGCAGCAGCAGCCACAACAGCAACCAGCTGCTGT  
 CCTTCCGGCCAGTCTCTGCGCGAACCAATGACAGCCGTGTGACTGTTTGAGGGGGACAACCTCCA  
 AGGCTGCAAGTTTGACCTCGTTGATGACTACCCATCCCTGCCCTCCATGGGCTGGCCAGCAAGGATGTG  
 GTTTCCCTCAAAGTCAGCTCCGGAGCGTGGGTGGCTACCAAGTACCCAGGCTACCGAGGCTACCAAGTATG  
 TGTTGGAGCGGGACCGGCACAGCGGAGAGTTCTGTACTTACGGTGTGAGCTCGGCACACAGGCCACACTGG  
 GCAGCTGCAGTCCATCCGGAGAGTCCAGCAC

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >RG216085 representing NM\_005209  
 Red=Cloning site Green=Tags(s)

MSSAPAPGPAPASLTLWDEEDFQRRRCRLSDCANVCERGGPRVRSVKVENVVWVAFEYPDFQGGQFIL  
 EKGDYPRWSAWSGSSSHNSNQLLSFRPVLCAHNDSRVTLFEGDNFQGCKFDLVDDYPSLPSMGWASKDV  
 GSLKVSSGAWVAYQYPGYRGYQYVLERDRHSGEFCTYGELGTQAHTGQLQSIRRVQH

**TRTRPLE** - GFP Tag - V

**Restriction Sites:** SgfI-MluI



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**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\\_005209.1](#), [NP\\_005200.1](#)

**RefSeq Size:** 700 bp

**RefSeq ORF:** 593 bp

**Locus ID:** 1412

**Cytogenetics:** 2q35

**Gene Summary:** Crystallins are separated into two classes: taxon-specific, or enzyme, and ubiquitous. The latter class constitutes the major proteins of the vertebrate eye, which function to maintain 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 defined 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 but absent in the acidic group). Beta-crystallins form aggregates of different sizes and are able to form homodimers through self-association or heterodimers with other beta-crystallins. This gene is a beta acidic group member. Three alternatively spliced transcript variants encoding identical proteins have been reported. [provided by RefSeq, Jul 2008]