

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 >RG216085 representing NM_005209

Sequence: Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC

GCCGCGATCGCC

ATGAGCAGCGCCCCGCGGCCCGGCCCCGCCCAGCCTCACGCTCTGGGACGAGGAGGAGGACTTCCAGG
GCCGTCGCTGTCGGCTGCTAAGCGACTGTGCGAACGTCTGCGAGCGCGGAGGCCTGCCCAGGGTGCGCTC
GGTCAAGGTGGAAAACGGCGTTTGGGTGGCCTTTGAGTACCCCGACTTCCAGGGACAGCAGCAGCTCATTCTG
GAGAAGGGAGACTATCCTCGCTGGAGCGCCTGGAGTGGCAGCAGCCACAACAGCAACCAGCTGCTGT
CCTTCCGGCCAGTGCTCTGCGCGAACCACAATGACAGCCGTGTGACACTGTTTGAGGGGGACAACTTCCA
AGGCTGCAAGTTTGACCTCGTTGATGACTACCCATCCCTGCCCTCCATGGGCTGGGCCAGCAAGGATGTG
GGTTCCCTCAAAGTCAGCTCCGGAGCGTGGGTGGCCTACCAGTACCCAGGCTACCAGGAGCTACCAGTATG
TGTTGGAGCGGGACCGGCACAGCGGAGAGTTCTGTACTTACGGTGAGCTCGGCACACAGGCCCACACTGG

GCAGCTGCAGTCCATCCGGAGAGTCCAGCAC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG216085 representing NM_005209

Red=Cloning site Green=Tags(s)

MSSAPAPGPAPASLTLWDEEDFQGRRCRLLSDCANVCERGGLPRVRSVKVENGVWVAFEYPDFQGQQFIL EKGDYPRWSAWSGSSSHNSNQLLSFRPVLCANHNDSRVTLFEGDNFQGCKFDLVDDYPSLPSMGWASKDV

GSLKVSSGAWVAYQYPGYRGYQYVLERDRHSGEFCTYGELGTQAHTGQLQSIRRVQH

TRTRPLE - GFP Tag - V

Restriction Sites: Sgfl-Mlul



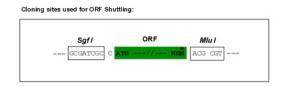
OriGene Technologies, Inc. 9620 Medical Center Drive, Ste 200

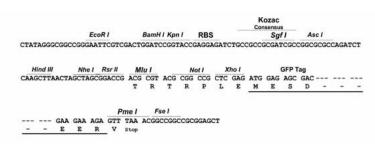
CN: techsupport@origene.cn

Rockville, MD 20850, US Phone: +1-888-267-4436 https://www.origene.com techsupport@origene.com EU: info-de@origene.com

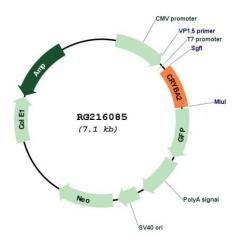


Cloning Scheme:





Plasmid Map:



ACCN: NM_005209

ORF Size: 591 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: <u>NM 005209.1</u>, <u>NP 005200.1</u>

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]