

## Product datasheet for SC303603

### CRYBA2 (NM\_005209) Human Untagged Clone

#### Product data:

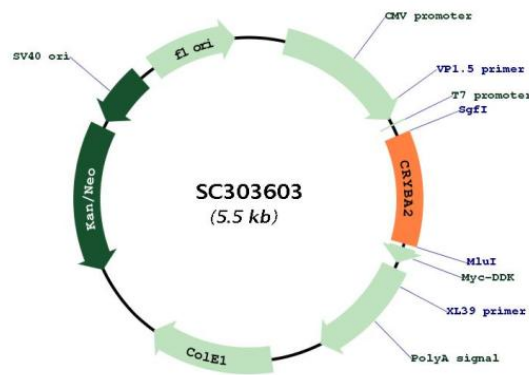
Product Type:	Expression Plasmids
Product Name:	CRYBA2 (NM_005209) Human Untagged Clone
Tag:	Tag Free
Symbol:	CRYBA2
Synonyms:	crystallin, beta A2; eye lens structural protein
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>SC303603 representing NM_005209. Blue=Insert sequence Red=Cloning site Green=Tag(s)

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GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGAGCAGCGCCCCGCGCCGGGCCCGCGCCCGCCAGCCTCACGCTCTGGGACGAGGAGGACTTCCAG
GGCCGTCGCTGTCGGCTGCTAAGCGACTGTGCGAACGTCTGCGAGCGCGGAGGCCTGCCAGGGTGCGC
TCGGTCAAGGTGGAAAACGGCGTTTGGGTGGCCTTTGAGTACCCCGACTTCCAGGGACAGCAGTTCATT
CTGGAGAAGGGAGACTATCCTCGCTGGAGCGCCTGGAGTGGCAGCAGCCACAACAGCAACCAGCTG
CTGTCCTTCCGGCAGTGCTCTGCGCGAACCAATGACAGCCGTGTGACTGTTTGGGGGACAAC
TTCCAAGGCTGCAAGTTTGACCTCGTTGATGACTACCCATCCCTGCCCTCCATGGGCTGGCCAGCAAG
GATGTGGGTTCCCTCAAAGTCAGCTCCGGAGCGTGGGTGGCTACCAGTACCAGGCTACCAGGGCTAC
CAGTATGTGTTGGAGCGGACCGGCACAGCGGAGATTCTGTACTTACGGTGAGCTCGGCACACAGGCC
CACACTGGGCAGCTGCAGTCCATCCGGAGAGTCCAGCAGTAG
ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC
```

Restriction Sites: Sgfl-MluI



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**Plasmid Map:**


**ACCN:** NM\_005209

**Insert Size:** 594 bp

**OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

**OTI Annotation:** This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

**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:	<a href="#">NM_005209.1</a>
RefSeq Size:	700 bp
RefSeq ORF:	594 bp
Locus ID:	1412
Cytogenetics:	2q35
MW:	22.1 kDa

**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]

Transcript Variant: This variant (1) contains a different 5' UTR region as compared to variants 2 and 3, but encodes the identical protein.