

## Product datasheet for MR223426

### Crybb2 (NM\_007773) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Crybb2 (NM_007773) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Crybb2
Synonyms:	Aey; Cryb-; Cryb-2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR223426 representing NM_007773 Red=Cloning site Blue=ORF Green=Tags(s)

TTTGTGAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCCTCAGACCACAGACACAGGCGGGCAAGCCCCAGCCCCTTAACCCCAAGATCATCATCTTCGAAC  
AGGAGAACTCCAGGGCCATTCCACGAGCTCAGCGGGCCCTGCCCAACCTGAAGGAGACTGGTATGGA  
GAAGGCGGGCTCCGTCTGGTGCAGGCTGGACCCTGGTGGGCTACGAGCAGGCTAATTGCAAGGGCGAG  
CAGTTTGTGTTTAAAAGGGCGAGTACCCACGTTGGGACTCTGGACCAGCAGCCGAGGACAGACTCCC  
TCAGCTCTCTGAGGCCCATCAAAGTGGACAGCCAAGAGACAAGATCATCTTATATGAGAACCCCAACTT  
TACTGGCAAGAAGATGGAGATTGTAGACGACGATGTGCCAGCTTCCATGCCCATGGATACCAGGAAAAG  
GTGTCTTCCGTGCGTGTGCAGAGCGGCACGTGGGTGGGTACCACTACCTGGCTACCGTGGGCTGCAGT  
ACCTGTGGAGAAGGGGATTACAAGGACAACAGCGACTTCGGGGCCCTCACCCCCAGGTGCAGTCTGT  
GCGTCGCATCCGTGACATGCAGTGGCACCAGCGAGGTGCCTTCCACCCCTCCAGC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:	>MR223426 representing NM_007773 Red=Cloning site Green=Tags(s)
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MASDHQTQAGKPQPLNPKIIIFEQENFQGHSHELSGPCPNLKETGMEKAGSVLVQAGPWVGYEQANCKGE  
QFVFEKGEYPRWDSWTSSRRDLSLRLPIKVDSQEHKILYENPNFTGKKMEIVDDVPSFHAHGYQEK  
VSSVRVQSGTWVGYQYPGYRGLQYLLEKGDYKDNSDFGAPHPQVQSVRRIRDMQWHQRGAHPSS

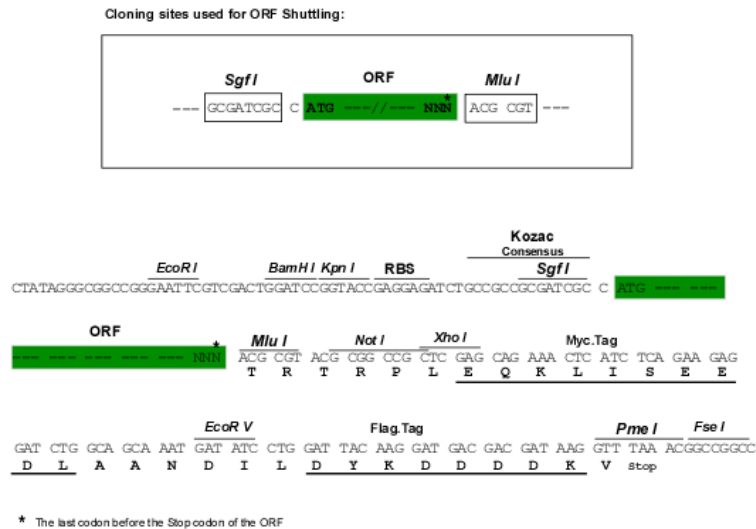
**TRTRPLEQKLISEEDLAANDILDYKDDDDKV**


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**Chromatograms:** [https://cdn.origene.com/chromatograms/mm9057\\_d04.zip](https://cdn.origene.com/chromatograms/mm9057_d04.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_007773

**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.

**Note:** Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

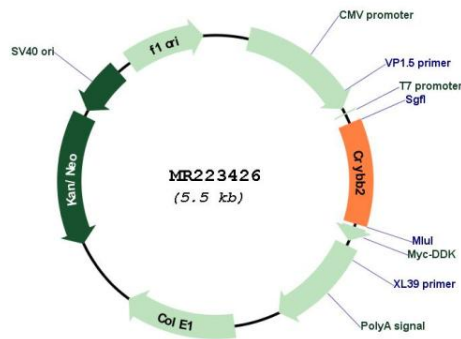
**RefSeq:** [NM\\_007773.4](#), [NP\\_031799.1](#)

**RefSeq Size:** 916 bp

RefSeq ORF: 618 bp  
 Locus ID: 12961  
 UniProt ID: [P62696](#)  
 Cytogenetics: 5 55.38 cM  
 MW: 23.4 kDa

**Gene Summary:** This gene is a member of the beta-crystallin family. Beta crystallins, along with alpha and gamma crystallins, are the major proteins found in the eye lens. These proteins maintain the refractive index of the lens whilst also maintaining its transparency. Since lens central fiber cells lose their nuclei during development, crystallins are made and then retained throughout life, making them extremely stable proteins. Beta and gamma crystallins are considered be a superfamily and have a similar domain architecture, including four Greek Key motifs. Beta-crystallins form aggregates of different sizes and are able to self-associate to form dimers or to form heterodimers with other beta-crystallins. The protein encoded by this gene may have Ca<sup>2+</sup>-binding activity and could be associated with potential functions in the hippocampus and in sperm. Targeted knockout of this gene in mouse induces age-related cataract. A chain-terminating mutation in a similar gene in human was found to cause type 2 cerulean cataracts. [provided by RefSeq, Feb 2015]

## Product images:



Circular map for MR223426