

## Product datasheet for RC207718

### beta B1 Crystallin (CRYBB1) (NM\_001887) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	beta B1 Crystallin (CRYBB1) (NM_001887) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	beta B1 Crystallin
Synonyms:	CATCN3; CTRCT17
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC207718 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCCCGGATCGCC

ATGTCTCAGGCTGCAAAGGCCTCGGCCTCGGCCACAGTGGCGGTGAACCCAGGGCCTGACACCAAGGGGA  
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CAGCGCCAAGGCGCGGAACTGCCTCCTGGAACTACAGGCTGGTGGTCTTCGAACTGGAAAACCTCCAG  
GGCCGTCGAGCAGAATTCTCGGGGAGTGTCAAATCTGGCAGACCGTGGCTTCGACCGTGTGCGCAGCA  
TCATTGTCTCCGCGGGACCTGGGTGCGCTTTGAGCAGTCCAACCTCCGCGGGGAGATGTTTCATCCTGGA  
GAAGGGCGAGTACCCTCGCTGGAACACATGGTTCGAGCAGTACCAGCAGTATCGGCTCATGTCTCCGG  
CCCATCAAAATGGATGCCAGGAGCACAAAATCTCCCTGTTTGAAGGGGCAACTTCAAGGGCAACACCA  
TAGAGATCCAGGGGGACGACGCCACCCAGTCTCTGGGTCTACGGCTTCAGTGACCGCGTGGGCAGCGTGAA  
GGTCTCCAGTGGAAATGGGTTGGCTATCAGTATCCTGGTACCAGCGGGTACCAGTACCTCCTAGAGCCT  
GGTGACTTCCGGCACTGGAATGAGTGGGGAGCCTCCAGCCACAGATGCAGTCCCTGCGTGCCTGCGTG  
ACAAGCAGTGGCACCTCGAGGGTCTTCCCTGTCTGGCCACAGAGCCCCCAAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC207718 protein sequence  
Red=Cloning site Green=Tags(s)

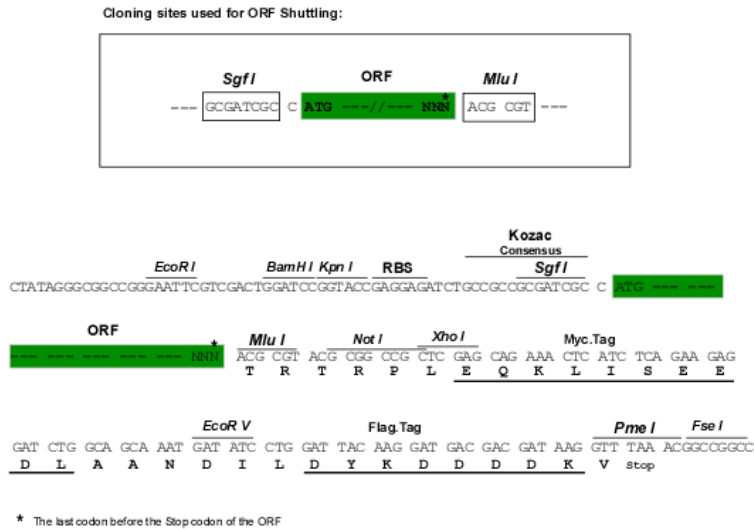
MSQAAKASASATVAVNPGPDTKGGKAPPAGTSPSPGTTLAPTTVPITSAKAAELPPGNRYLVVFELENFQ  
 GRRAEFSGECSNLADRGFDRVRSIIVSAGPWVAFEQSNFRGEMF ILEKGEYPRWNTWSSSYRSDRLMSFR  
 PIKMDAQEHKISLFEGANFKGNTIEIQGDDAPSLWVYGFSDRVGSVKVSSGTWVGYQYPGYRQYLLLEP  
 GDFRHWNEWGAFQPMQSLRRLRDKQWHLEGSFPVLATEPPK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6337\\_f04.zip](https://cdn.origene.com/chromatograms/mk6337_f04.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001887

**ORF Size:** 756 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\\_001887.4](#)

**RefSeq Size:** 921 bp

**RefSeq ORF:** 759 bp

**Locus ID:** 1414

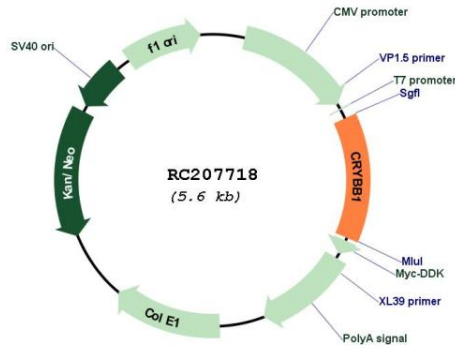
**UniProt ID:** [P53674](#)

**Cytogenetics:** 22q12.1

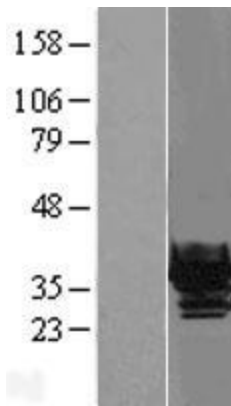
**MW:** 28 kDa

**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, undergoes extensive cleavage at its N-terminal extension during lens maturation. It is also a member of a gene cluster with beta-A4, beta-B2, and beta-B3. [provided by RefSeq, Jul 2008]

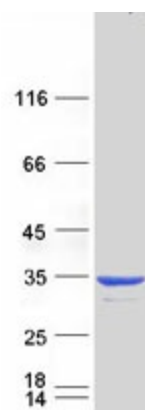
Product images:



Circular map for RC207718



Western blot validation of overexpression lysate (Cat# [LY419684]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC207718 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified CRYBB1 protein (Cat# [TP307718]). The protein was produced from HEK293T cells transfected with CRYBB1 cDNA clone (Cat# RC207718) using MegaTran 2.0 (Cat# [TT210002]).