

## Product datasheet for SC303090

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

#### Product data:

Product Type:	Expression Plasmids
Product Name:	beta B1 Crystallin (CRYBB1) (NM_001887) Human Untagged Clone
Tag:	Tag Free
Symbol:	beta B1 Crystallin
Synonyms:	CATCN3; CTRCT17
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>SC303090 representing NM_001887. Blue=Insert sequence Red=Cloning site Green=Tag(s)

GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTG  
 GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC  
 ATGTCTCAGGCTGCAAAGGCCTCGGCCTCGGCCACAGTGGCGGTGAACCCAGGGCCTGACACCAAGGGG  
 AAGGGGGCCCCACCTGCAGGAACATCCCTAGTCCCGGCACTACCCTGGCCCCAACCAACCGTGCCTATT  
 ACCAGCGCCAAGGCGGCGGAAGTGCCTCCTGGAACTACAGGCTGGTGGTCTTCGAACTGGAAAATTC  
 CAGGGCCGTCGAGCAGAATTCTCGGGGAGTGCTCAAATCTGGCAGACCGTGGCTTCGACCGTGTGCGC  
 AGCATATTGTCTCCGCGGGACCCTGGTGCCTTTGAGCAGTCCAATTCCGCGGGGAGATGTTTCATC  
 CTGGAGAAGGGCGAGTACCCTCGCTGGAACACATGGTCGAGCAGTACCAGTATCGGCTCATGTCC  
 TTCCGGCCCATCAAAATGGATGCCAGGAGCACAAATCTCCCTGTTGAAGGGGCCAACTCAAGGGC  
 AACACCATAGAGATCCAGGGGACGACGACCCAGTCTCTGGGTCTACGGCTTCAGTGACCGCGTGGGC  
 AGCGTGAAGGTCTCCAGTGGAACATGGTTGGCTATCAGTATCCTGGCTACCGCGGGTACCAGTACCTC  
 CTAGAGCCTGGTGACTTCGGGCACTGGAATGAGTGGGGAGCCTTCAGCCACAGATGCAGTCCCTGCGT  
 CGCCTGCGTGACAAGCAGTGGCACCTCGAGGGTCCTTCCTGTCTGGCCACAGAGCCCCCAAGTGA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT  
 TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC

Restriction Sites:	SgfI-MluI
ACCN:	NM_001887
Insert Size:	759 bp


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<b>OTI Disclaimer:</b>	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).
<b>OTI Annotation:</b>	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.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>RefSeq:</b>	<u>NM_001887.3</u>
<b>RefSeq Size:</b>	921 bp
<b>RefSeq ORF:</b>	759 bp
<b>Locus ID:</b>	1414
<b>UniProt ID:</b>	<u>P53674</u>
<b>Cytogenetics:</b>	22q12.1
<b>MW:</b>	28 kDa
<b>Gene Summary:</b>	<p>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]</p>