

## Product datasheet for **SC304478**

### Beta crystallin S (CRYGS) (NM\_017541) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Beta crystallin S (CRYGS) (NM_017541) Human Untagged Clone
Tag:	Tag Free
Symbol:	Beta crystallin S
Synonyms:	CRYG8; CTRCT20
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>SC304478 representing NM_017541. Blue=Insert sequence Red=Cloning site Green=Tag(s)

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GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGCCGGGAATTCGTGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGTCTAAAACCTGGAACCAAGATTACTTTCTATGAAGACAAAAATTTCAAGGCCGTCGCTATGACTGT
GATTGCGACTGTGCAGATTTCCACACATACCTAAGTCGCTGCAACTCCATTAAAGTGAAGGAGGCCACC
TGGGCTGTTTATGAAAGGCCCACTTTGCTGGGTACATGTACATCTTACCACAGGGAGAGTACCCTGAA
TACCAGCGTTGGATGGGCTCAACGACCGCCTCAGCTCCTGCAGAGCTGTTTCATCTGCCTAGTGGAGGC
CAGTATAAGATTCAGATCTTTGAGAAAGGGGATTTTAGTGGTCAGATGTATGAAACCACCGAAGATTGC
CCTTCCATCATGGAGCAATTTACATGCGAGAGATCCACTCCTGTAAGGTGCTGGAGGGTGTCTGGATT
TTCTATGAGCTACCCAACCTACCGTGGCAGGCAGTACCTCCTGGACAAGAAGGAGTACCGGAAGCCCATC
GATTGGGGTGCAGCCTCCCCAGCTGTCCAGTCTTCCGCCGATTGTGGAGTAA
ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTTAAACGGCCGCGC
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Restriction Sites:	Sgfl-Mlul
ACCN:	NM_017541
Insert Size:	537 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).



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<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>	<a href="#">NM_017541.2</a>
<b>RefSeq Size:</b>	843 bp
<b>RefSeq ORF:</b>	537 bp
<b>Locus ID:</b>	1427
<b>UniProt ID:</b>	<a href="#">P22914</a>
<b>Cytogenetics:</b>	3q27.3
<b>MW:</b>	21 kDa
<b>Gene Summary:</b>	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. Gamma-crystallins are a homogeneous group of highly symmetrical, monomeric proteins typically lacking connecting peptides and terminal extensions. They are differentially regulated after early development. This gene encodes a protein initially considered to be a beta-crystallin but the encoded protein is monomeric and has greater sequence similarity to other gamma-crystallins. This gene encodes the most significant gamma-crystallin in adult eye lens tissue. Whether due to aging or mutations in specific genes, gamma-crystallins have been involved in cataract formation. [provided by RefSeq, Jul 2008]