

## Product datasheet for **SC310242**

### Bestrophin (BEST1) (NM\_004183) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Bestrophin (BEST1) (NM_004183) Human Untagged Clone
Tag:	Tag Free
Symbol:	Bestrophin
Synonyms:	ARB; BEST; Best1V1Delta2; BMD; RP50; TU15B; VMD2
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL4</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

**Fully Sequenced ORF:** >OriGene sequence for NM\_004183 edited  
 AGCAGATTACAAGAAGGGACCAAGACAAGGACTCCTTTGTGGAGGTCCTGGCTTAGGGAG  
 TCAAGTGACGGCGGCTCAGCACTCACGTGGCAGTGCCAGCCTCTAAGAGTGGGCAGGGG  
 CACTGGCCACAGAGTCCCAGGGAGTCCCACCAGCCTAGTCGCCAGACCTTCTGTGGGATC  
 ATCGGACCCACCTGGAACCCACCTGACCCAAGCCACCTGCTGCAGCCCACTGCCTGGC  
 CATGACCATCACTTACACAAGCCAAGTGCTAATGCCCGCTTAGGCTCCTTCTCCCGCCT  
 GCTGTGTGCTGGCGGGCAGCATCTACAAGCTGTATATGGCGAGTTCCTAATCTTCCT  
 GCTCTGCTACTACATCATCCGCTTTATTTATAGGCTGGCCCTCACGGAAGAACAACAGCT  
 GATGTTTGAGAACTGACTCTGTATTGGCAGAGCTACATACAGCTCATCCCCATTCCTT  
 CGTGCTGGGCTTCTACGTGACGCTGGTCGTGACCCGCTGGTGGAACAGTACGAGAACCT  
 GCCGTGGCCGACCGCTCATGAGCCTGGTGTGGGCTTCGTGGAAGGCAAGGACGAGCA  
 AGGCCGGTGTGCGGCGCAGCTCATCCGCTACGCCAACCTGGGCAACGTGCTCATCCT  
 GCGCAGCGTCAGCACCGCAGTCTACAAGCGCTTCCCCAGCGCCAGCACCTGGTGAAGC  
 AGGCTTTATGACTCCGGCAGAACACAAGCAGTTGGAGAACTGAGCTACCACACAACAT  
 GTTCTGGGTGCCCTGGGTGTGGTTTGCCAACCTGTCAATGAAGGCGTGGCTTGGAGTGC  
 AATCCGGGACCCTATCCTGCTCCAGAGCCTGCTGAACGAGATGAACACCTTGCGTACTCA  
 GTGTGGACACCTGTATGCCTACGACTGGATTAGTATCCCCTGGTGTATACACAGGTGGT  
 GACTGTGGCGGTGTACAGCTTCTTCTGACTTGTCTAGTTGGGCGGCAGTTTCTGAACCC  
 AGCCAAGGCCTACCCTGGCCATGAGCTGGACCTCGTTGTGCCCGTCTTACGTTCCCTGCA  
 GTTCTTCTTATGTTGGCTGGCTGAAGGTGGCAGAGCAGCTCATCAACCCCTTTGGAGA  
 GGATGATGATGATTTTGGACCAACTGGATTGTCGACAGGAATTTGCAGGTGTCCCTGTT  
 GGCTGTGGATGAGATGCACCAGGACCTGCCTCGGATGGAGCCGGACATGACTGGAATAA  
 CCCCAGCCACAGCCCCCTACACAGCTGCTTCCGCCAGTTCCGTCGAGCCTCCTTTAT  
 GGCTCCACCTTCAACATCAGCCTGAACAAGAGGAGATGGAGTTCAGCCCAATCAGGA  
 GGACGAGGAGGATGCTCACGCTGGCATCATTGGCCGCTTCTAGGCCTGCAGTCCATGA  
 TCACCATCTCCAGGGCAAACCTCAAGGACCAAACCTACTGTGGCCAAAGAGGGAATCCCT  
 TCTCCACGAGGGCCTGCCAAAAACCACAAGGCAGCCAAACAGAACGTTAGGGGCCAGGA  
 AGACAACAAGGCCTGGAAGCTTAAGGCTGTGGACGCTTCAAGTCTGCCCACTGTATCA  
 GAGGCCAGGCTACTACAGTGCCCCACAGACGCCCTCAGCCCCACTCCCATGTTCTTCCC  
 CCTAGAACCATCAGCGCCGTCAAAGCTTACAGTGTACAGGCATAGACACCAAAGACAA  
 AAGCTTAAAGACTGTGAGTTCTGGGGCCAAGAAAAGTTTTGAATTGCTCTCAGAGAGCGA  
 TGGGGCCTTGATGGAGCACCCAGAAGTATCTCAAGTGAGGAGGAAAACCGTGGAGTTTAA  
 CCTGACGGATATGCCAGAGATCCCCGAAAATCACCTCAAAGAACCTTTGGAACAATCACC  
 AACCAACATACACTACACTCAAAGATCATATGGATCCTTATTGGGCCTTGAAAAACAG  
 GGATGAAGCACATTCCTAAC

**Restriction Sites:** Please inquire  
**ACCN:** NM\_004183  
**Insert Size:** 1900 bp

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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:** The ORF of this clone has been fully sequenced and found to contain one SNP compared to NM\_004183.2.

**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\\_004183.2](#), [NP\\_004174.1](#)

**RefSeq Size:** 2673 bp

**RefSeq ORF:** 1758 bp

**Locus ID:** 7439

**UniProt ID:** [O76090](#)

**Cytogenetics:** 11q12.3

**Domains:** DUF289

**Protein Families:** Druggable Genome, Ion Channels: Other, Transmembrane

**Gene Summary:**

This gene encodes a member of the bestrophin gene family. This small gene family is characterized by proteins with a highly conserved N-terminus with four to six transmembrane domains. Bestrophins may form chloride ion channels or may regulate voltage-gated L-type calcium-ion channels. Bestrophins are generally believed to form calcium-activated chloride-ion channels in epithelial cells but they have also been shown to be highly permeable to bicarbonate ion transport in retinal tissue. Mutations in this gene are responsible for juvenile-onset vitelliform macular dystrophy (VMD2), also known as Best macular dystrophy, in addition to adult-onset vitelliform macular dystrophy (AVMD) and other retinopathies. Alternative splicing results in multiple variants encoding distinct isoforms. [provided by RefSeq, Nov 2008]

Transcript Variant: This variant (1) differs in the 5' UTR and coding sequence and in the 3' UTR and coding sequence compared to variant 2. The resulting isoform (1) is longer at the N-terminus and has a shorter and distinct C-terminus compared to isoform 2.