

## Product datasheet for **RC227442**

### Bestrophin (BEST1) (NM\_001139443) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Bestrophin (BEST1) (NM_001139443) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Bestrophin
Synonyms:	ARB; BEST; Best1V1Delta2; BMD; RP50; TU15B; VMD2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC227442 representing NM\_001139443  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGTTTGAGAACTGACTCTGTATTGCGACAGCTACATCCAGCTCATCCCCATTTCTTCGTGCTGGGCT  
 TCTACGTGACGCTGGTCTGTGACCCGCTGGTGGAACCAAGTACGAGAACCCTGCCGTGGCCCGACCGCTCAT  
 GAGCCTGGTGTGGGCTTCGTCGAAGGCAAGGACGAGCAAGGCCGGCTGCTGCGGCGCACGCTCATCCGC  
 TACGCCAACCTGGGCAACGTGCTCATCCTGCGCAGCGTCAAGCAGCTACAAGCGCTTCCCCAGCG  
 CCCAGCACCTGGTGAAGCAGGCTTTATGACTCCGGCAGAACACAAGCAGTTGGAGAACTGAGCCTACC  
 ACACAACATGTTCTGGGTGCCCTGGGTGTGTTTGCCAACTGTCAATGAAGGCGTGGCTGGAGGTGCA  
 ATCCGGGACCCTATCCTGCTCCAGAGCCTGCTGAACGAGATGAACACCTTGGTACTCAGTGTGGACACC  
 TGTATGCCTACGACTGGATTAGTATCCACTGGTGTATACACAGGTGGTACTGTGGCGGTACAGCTT  
 CTTCTGACTTGTCTAGTTGGGCGCAGTTTCTGAACCCAGCCAAGGCCTACCCTGGCCATGAGCTGGAC  
 CTCGTTGTGCCGCTTTCACGTTCTGCAGTCTTCTTCTATGTTGGCTGGCTGAAGGTGGCAGAGCAGC  
 TCATCAACCCCTTTGGAGAGGATGATGATGATTTTGGACCAACTGGATTGTCGACAGGAATTTGCAAGT  
 GTCCTGTTGGCTGTGGATGAGATGCACCAGGACCTGCCTCGGATGGAGCCGGACATGACTGGAATAAG  
 CCCGAGCCACAGCCCCCTACACAGCTGCTCCGCCAGTTCCGTCGAGTCTCCTTTATGGGCTCCACCT  
 TCAACATCAGCCTGAACAAAGAGGAGATGGAGTCCAGCCCAATCAGGAGGACGAGGAGGATGCTCACGC  
 TGGCATCATTGGCCGCTTCTAGGCTGCAGTCCCATGATCACCATCCTCCAGGGCAAACCTCAAGGACC  
 AAACACTGTGGCCCAAGAGGGAATCCCTTCTCCACGAGGCGCTGCCAAAAACCAAGGACGCCAAAC  
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 CACCTCAAAGAACCTTTGGAACAATCACCAACCAACATACACACTACACTCAAAGATCACATGGATCCTT  
 ATTGGGCCTTGGAAAACAGGTCTGTCTCCACCTGAACCAGGGGCACTGCATTGCCCTGTGCCCAACCC  
 AGCTTCCCTTGTCTGAGCCTACCCTTCTCCACAATTTCTAGGTTCCATCACTGCCAGAGCACACTG  
 GACCTACGCCCAGCACTGGCTTGGGTATATACTTGGCCACCTTACAGGGATCCTAGGGAAGTGTTCGG  
 GACCTTTTCTCACTTACCCTGGTATCACCCGGAAGACTTCTTGGGACCAGGTGAAGGAAGA

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC227442 representing NM\_001139443  
 Red=Cloning site Green=Tags(s)

MFEKLTLYCDSYIQLIPISFVLGFYVTLVVTRWWNQYENLPWPDRMLSLVSGFVEGKDEQGRLLRRLIR  
 YANLGNVILRSVSTAVYKRFPSAQHLVQAGFMTPAEHKQLEKLSLPHNMFVWPVWFANLSMKAWLGGR  
 IRDPILLQSLNEMNLTQCGHLYAYDWISIPLVYTQVVTAVVYSFFLTCLVGRQFLNPAKAYPGHELD  
 LVVPVFTFLQFFFYVWGLKVAEQLINPFGEDDDDFETNWI VDRNLQVSL LAVDEMHDLPMEPDMYWNK  
 PEPQPPYAASAQFRRVFMGSTFNI SLNKEEMEFQPNQEDEDAHAGI IGRFLGLQSHDHHPPRANSRT  
 KLLWPKRESLLHEGLPKNHKAAKQNVRGQEDNKAWKLVKAVDAFKSAPLYQRPGYYSAPQTPLSPTPMFFP  
 LEPSAPSKLHSVTGIDTKDKSLKTYSVGAKKSFELLSESDGALMEHPEVSQVRRKTVEFNLTDMPEIPEN  
 HLKEPLEQSPTNIHTTLKDHMDPYWALENRSVLHLNQGHICALPTPASLALSLPFLHNFLGFHHCQSTL  
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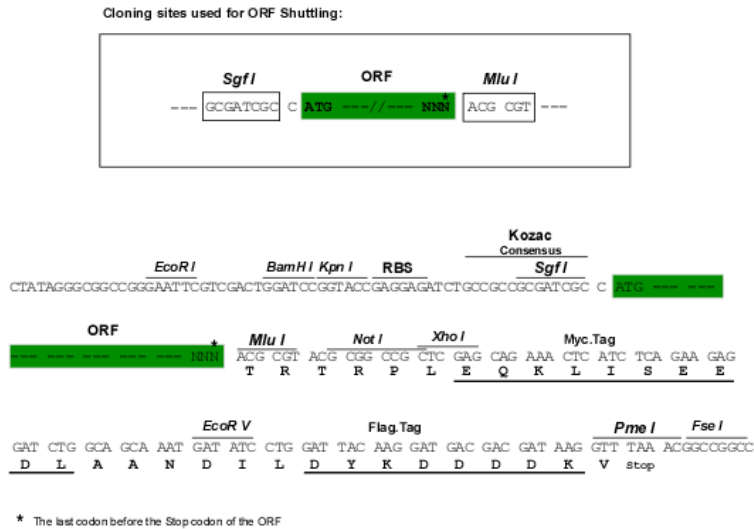
**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mg4792\\_e10.zip](https://cdn.origene.com/chromatograms/mg4792_e10.zip)

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM\_001139443

ORF Size: 1812 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\\_001139443.1](#), [NP\\_001132915.1](#)

RefSeq ORF: 1815 bp

Locus ID: 7439

UniProt ID: [O76090](#)

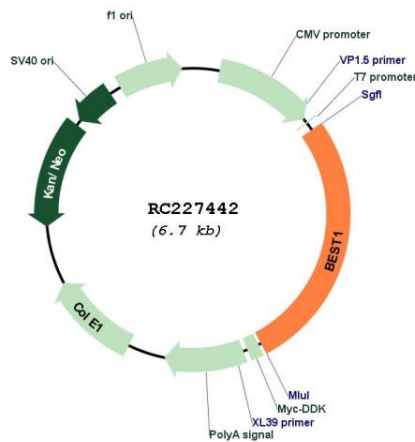
**Cytogenetics:** 11q12.3

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

**MW:** 68.9 kDa

**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]

**Product images:**



Circular map for RC227442