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Product datasheet for RC238575

Bestrophin (BEST1) (NM_001300786) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Bestrophin (BEST1) (NM_001300786) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	BEST1
Synonyms:	ARB; BEST; Best1V1Delta2; BMD; RP50; TU15B; VMD2
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin

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ORF Nucleotide Sequence:

>RC238575 representing NM_001300786
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGTTTGAGAAACTGACTCTGTATTGCGACAGCTACATCCAGCTCATCCCCATTTCCTTCGTGCTGGGCT
TCTACGTGACGCTGGTCGTGACCCGCTGGTGGAACCAGTACGAGAACCTGCCGTGGCCCGACCGCCTCAT
GAGCCTGGTGTCGGGCTTCGTCGAAGGCAAGGACGAGCAAGGCCGGCTGCTGCGGCGCACGCTCATCCGC
TACGCCAACCTGGGCAACGTGCTCATCCTGCGCAGCGTCAGCACCGCAGTCTACAAGCGCTTCCCCAGCG
CCCAGCACCTGGTGCAAGCAGGCTTTATGACTCCGGCAGAACACAAGCAGTTGGAGAAACTGAGCCTACC
ACACAACATGTTCTGGGTGCCCTGGGTGTGGTTTGCCAACCTGTCAATGAAGGCGTGGCTTGGAGGTCGA
ATCCGGGACCCTATCCTGCTCCAGAGCCTGCTGAACGAGATGAACACCTTGCGTACTCAGTGTGGACACC
TGTATGCCTACGACTGGATTAGTATCCCACTGGTGTATACACAGGTGGTGACTGTGGCGGTGTACAGCTT
CTTCCTGACTTGTCTAGTTGGGCGGCAGTTTCTGAACCCAGCCAAGGCCTACCCTGGCCATGAGCTGGAC
CTCGTTGTGCCCGTCTTCACGTTCCTGCAGTTCTTCTTCTATGTTGGCTGGCTGAAGGTGTCCCTGTTGG
CTGTGGATGAGATGCACCAGGACCTGCCTCGGATGGAGCCGGACATGTACTGGAATAAGCCCGAGCCACA
GCCCCCCTACACAGCTGCTTCCGCCCAGTTCCGTCGAGCCTCCTTTATGGGCTCCACCTTCAACATCAGC
CTGAACAAAGAGGAGATGGAGTTCCAGCCCAATCAGGAGGACGAGGAGGATGCTCACGCTGGCATCATTG
GCCGCTTCCTAGGCCTGCAGTCCCATGATCACCATCCTCCCAGGGCAAACTCAAGGACCAAACTACTGTG
GCCCAAGAGGGAATCCCTTCTCCACGAGGGCCTGCCCAAAAACCACAAGGCAGCCAAACAGAACGTTAGG
GGCCAGGAAGACAACAAGGCCTGGAAGCTTAAGGCTGTGGACGCCTTCAAGTCTGCCCCACTGTATCAGA
GGCCAGGCTACTACAGTGCCCCACAGACGCCCCTCAGCCCCACTCCCATGTTCTTCCCCCTAGAACCATC
AGCGCCGTCAAAGCTTCACAGTGTCACAGGCATAGACACCAAAGACAAAAGCTTAAAGACTGTGAGTTCT
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ACCTTTGGAACAATCACCAACCAACATACACACTACACTCAAAGATCACATGGATCCTTATTGGGCCTTG
GAAAACAGGGATGAAGCACATTCC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

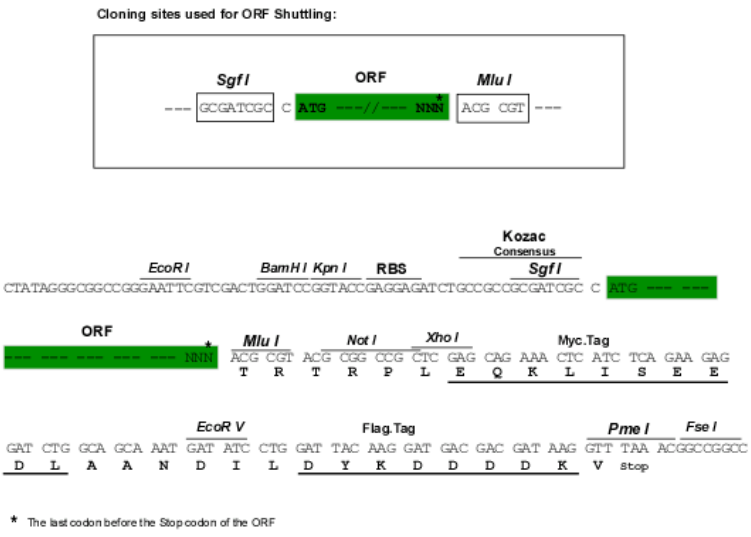
>RC238575 representing NM_001300786
Red=Cloning site Green=Tags(s)

MFEKLTLYCDSYIQLIPISFVLGFYVTLVVTRWWNQYENLPWPDRLMSLVSGFVEGKDEQGRLLRRTLIR
YANLGNVLILRSVSTAVYKRFPSAQHLVQAGFMTPAEHKQLEKLSLPHNMFWVPWVWFANLSMKAWLGGR
IRDPILLQSLLNEMNTLRTQCGHLYAYDWISIPLVYTQVVTVAVYSFFLTCLVGRQFLNPAKAYPGHELD
LVVPVFTFLQFFFYVGWLKVSLLAVDEMHQDLPRMEPDMYWNKPEPQPPYTAASAQFRRASFMGSTFNIS
LNKEEMEFQPNQEDEEDAHAGIIGRFLGLQSHDHHPPRANSRTKLLWPKRESLLHEGLPKNHKAAKQNVR
GQEDNKAWKLKAVDAFKSAPLYQRPGYYSAPQTPLSPTPMFFPLEPSAPSKLHSVTGIDTKDKSLKTVSS
GAKKSFELLSESDGALMEHPEVSQVRRKTVEFNLTDMPEIPENHLKEPLEQSPTNIHTTLKDHMDPYWAL
ENRDEAHS

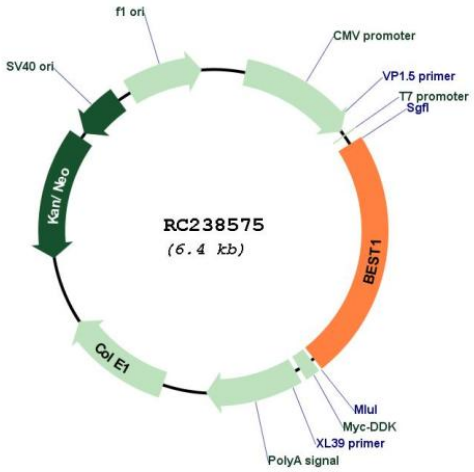
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN:	NM_001300786
ORF Size:	1494 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_001300786.2
RefSeq Size:	2421 bp
RefSeq ORF:	1497 bp
Locus ID:	7439
UniProt ID:	O76090
Cytogenetics:	11q12.3
Protein Families:	Druggable Genome, Ion Channels: Other, Transmembrane
MW:	57.8 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]