

Product datasheet for **RG238714**

Bestrophin (BEST1) (NM_001300787) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Bestrophin (BEST1) (NM_001300787) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Bestrophin
Synonyms:	ARB; BEST; Best1V1Delta2; BMD; RP50; TU15B; VMD2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG238714 representing NM_001300787.
 Blue=ORF Red=Cloning site Green=Tag(s)

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GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTGCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCCGGATCGCC
ATGTTTGGAGAACTGACTCTGTATTGCGACAGCTACATCCAGCTCATCCCCATTTCTTCGTGCTGGGC
TTCTACGTGACGCTGGTGTGACCCGCTGGTGAACAGTACGAGAACCCTGCCGTGGCCGACCGCCTC
ATGAGCCTGGTGTGCGGGCTTCGTGAAGCAAGGACGAGCAAGGCCGGCTGCTGCCGCGCACGCTCATC
CGCTACGCCAACCTGGGCAACGTGCTCATCTGCGCAGCGTCAGCACCGCAGTCTACAAGCGCTTCCCC
AGCGCCCAGCACCTGGTGAAGCAGGCTTTATGACTCCGGCAGAACACAAGCAGTTGGAGAACTGAGC
CTACCACACAACATGTTCTGGGTGCCCTGGGTGTGGTTTGCCAACTGTCAATGAAGCGTGGCTTGGG
GGTGAATCCGGGACCCTATCCTGCTCCAGAGCCTGCTGAACGAGATGAACACCTTGCCTACTCAGTGT
GGACACCTGTATGCTACGACTGGATTAGTATCCCACTGGTGTATACACAGGTGGTACTGTGGCGGTG
TACAGCTTCTTCTGACTTGTCTAGTTGGGCGGCAGTTTCTGAACCCAGCCAAGGCCACCTGGCCAT
GAGCTGGACCTCGTTGTGCCGCTTTCAGTTCCTGCAGTCTTCTTCTATGTTGGCTGGCTGAAGGTG
GCAGAGCAGCTCATCAACCCCTTTGGAGAGGATGATGATGATTTTGAACCAACTGGATTGTCGACAGG
AATTTGCAGGTGTCCCTGTTGGCTGTGGATGAGATGCACCAGGACCTGCCTCGGATGGAGCCGGACATG
TACTGGAATAAGCCCAGCCACAGCCCCCTACACAGCTGCTTCCGCCAGTTCCGTCGAGCCTCCTTT
ATGGGCTCCACCTTCAACATCAGCCTGAACAAAGAGGAGATGGAGTTCAGCCCAATCAGGAGGACGAG
GAGGATGCTCACGCTGGCATCATTGGCCGCTTCTAGGCTGCAGTCCCATGATCACCATCTCCAGG
GCAAACTCAAGGACCAAACTACTGTGGCCAAAGAGGGAATCCCTTCTCCACGAGGGCCTGCCAAAAAC
CACAAGGCAGCCAAACAGAACGTTAGGGCCAGGAAGACAACAAGGCCTGAAGCTTAAGGCTGTGGAC
GCCTTCAAGTCTGCCCACTGTATCAGAGGCCAGGCTACTACAGTGCACAGCCACAGACGCCCTCAGCCCC
ACTCCCATGTTCTTCCCTAGAACCATACGCGCGTCAAAGCTTACAGTGTACAGGCATAGACACC
AAAGACAAAAGCTTAAAGACTGTGAGTCTGGGCAAGAAAAGTTTGAATTGCTCTCAGAGAGCGAT
GGGCTTGTGAGCAGCCAGAAATCTCAAGTGAAGGAGAAAAGTGGAGTTAACTGACGGAT
ATGCCAGAGATCCCCGAAATCACCTCAAAGAACCTTTGGAACAATCACCAACCAACATACACACTACA
CTCAAAGATCACATGGATCCTTATTGGCCTTGGAAAACAGGGATGAAGCACATTCC
ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTAAAC
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Protein Sequence:

>Peptide sequence encoded by RG238714
 Blue=ORF Red=Cloning site Green=Tag(s)

```
MFEKLTLYCDSYIQLIPISFVLGFYVTLVVTRWWNQYENLPWPDRMLSLVSGFVEGKDEQGRLLRRTLIR
RYANLGNVLIILRSVSTAVYKRFPSAQLVQAGFMTPAEHKQLEKLSLPHNMFVWPVWFANLSMKAWLG
GRIRDPILLQSLNEMNLTQTQCGHLYADWISIPLVYTQVVTVAVYSFFLTCLVGRQFLNPAKAYPGH
ELDLVVPVFTFLQFFFYVGLKVAEQLINPFGEDDDDFETNWIIVDRNLQVSLLAVDLQDLPMEPDM
YWNKPEPQPPYTAASAQFRRASFMGSTFNI SLNKEEMEFQPNQEDEEDAHAGIIGRFLGLQSHDHP
ANSRTKLLWPKRESLLHEGLPKNHKAAKQNVRGQEDNKAWKLKAVDAFKSAPLYQRPYYSAPQTPSP
TPMFFPLEPSAPSKLHSTGIDTKDKSLKTVSSGAKKSFELLESSESGALMEHPEVSQVRRKTVFNLTD
MPEIPENHLKEPLEQSPTNIHTTLKDHMPYWALENRDEAHS
TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGEGTPEQGRMTNKMSTKGALTFSPYLLSHV
MGYGFYHFGTYPSGYENPFLHAINNGGYNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPED
SVIFTDKIIRSNATVEHLHPMGDNDLDGSFTRTFLRDGGYSSVVDSHMHFKSAIHPSILQNGGPMFA
FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV
```

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_001300787

ORF Size: 1575 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).

RefSeq: [NM_001300787.2](#)

RefSeq Size: 2502 bp

RefSeq ORF: 1578 bp

Locus ID: 7439

UniProt ID: [O76090](#)

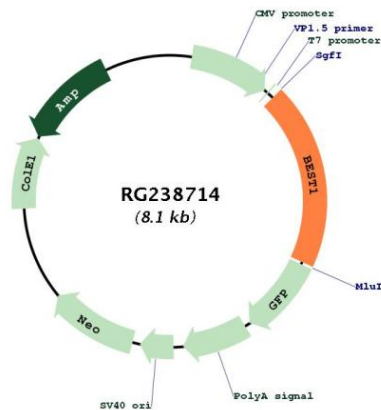
Cytogenetics: 11q12.3

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

MW: 61 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 RG238714