

Product datasheet for **RG238575**

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:	TurboGFP
Symbol:	BEST1
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:

>RG238575 representing NM_001300786.
 Blue=ORF Red=Cloning site Green=Tag(s)

GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTGACTG
 GATCCGGTACCGAGGAGATCTGCCGCC**CGGATCGCC**
 ATGTTTGGAAACTGACTCTGTATTGCGACAGCTACATCCAGCTCATCCCCATTTCTTCGTGCTGGGC
 TTCTACGTGACGCTGGTCTGACCCGCTGGTGAACAGTACGAGAACCCTGCCGTGGCCGACCGCTC
 ATGAGCCTGGTGTGGGCTTCGTGAAGCAAGGACGAGCAAGGCCGGCTGCTGCCGCGCACGCTATC
 CGCTACGCCAACCTGGGCAACGTGCTCATCTGCGCAGCGTCAGCACCGCAGTCTACAAGCGCTTCCCC
 AGCGCCAGCACCTGGTGAAGCAGGCTTTATGACTCCGGCAGAACAAGCAGTTGGAGAACTGAGC
 CTACCACACAACATGTTCTGGGTGCCCTGGGTGTGGTTTGCCAACTGTCAATGAAGCGTGGCTTGA
 GGTGCAATCCGGGACCCTATCCTGCTCCAGAGCCTGCTGAACGAGATGAACACCTTGCCTACTCAGTGT
 GGACACCTGTATGCTACGACTGGATTAGTATCCCACTGGTGTATACACAGGTGGTACTGTGGCGGTG
 TACAGTCTTCTCCTGACTTGTCTAGTTGGGCGGCAGTTTCTGAACCCAGCCAAGGCTACCTGGCCAT
 GAGCTGGACCTCGTTGTGCCGCTTTCAGTTCCTGCAGTCTTCTTCTATGTTGGCTGGCTGAAGGTG
 TCCTGTTGGCTGTGGATGAGATGCACCAAGGACCTGCCTCGGATGGAGCCGGACATGACTGGAATAAG
 CCCGAGCCACAGCCCCCTACACAGCTGCTCCGCCAGTTCCGTCGAGCCTCCTTTATGGGCTCCACC
 TTCAACATCAGCCTGAACAAAGAGGAGATGGAGTTCAGCCCAATCAGGAGGACGAGGAGGATGCTCAC
 GCTGGCATCATTGGCCGCTTCTAGGCCTGCAGTCCCATGATCACCATCCTCCAGGGCAAACCTCAAGG
 ACCAACTACTGTGGCCCAAGAGGGAATCCCTTCTCCACGAGGGCCTGCCAAAAACACAAGGCAGCC
 AAACAGAACGTTAGGGGCCAGGAAGACAACAAGGCTGGAAGCTTAAGGCTGTGGACGCTTCAAGTCT
 GCCCCTGTATCAGAGGCCAGGCTACTACAGTGCCCCACAGACGCCCTCAGCCCCACTCCCAGTTC
 TTCCCCCTAGAACCATCAGCGCCGTCAAAGCTTACAGTGTACAGGCATAGACACCAAGACAAAAGC
 TTAAGACTGTGAGTCTGGGGCCAAGAAAAGTTTTGAATTGCTCTCAGAGAGCGATGGGCGCTTGATG
 GAGCACCCAGAAGTATCTCAAGTGAGGAGGAAAAGTGTGGAGTTAACCTGACGGATATGCCAGAGATC
 CCCGAAAATCACCTCAAAGAACCTTTGGAACAATCACCAACCAACATACACACTACACTCAAAGATCAC
 ATGGATCCTTATTGGGCTTGGAAAACAGGGATGAAGCACATTCC
ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAAAC

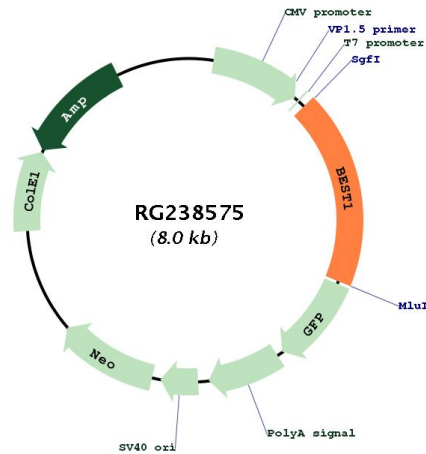
Protein Sequence:

>Peptide sequence encoded by RG238575
 Blue=ORF Red=Cloning site Green=Tag(s)

MFEKLTLYCDSYIQLIPISFVLGFYVTLVVTRWVNQYENLPWPDRLMSLVSGFVEGKDEQGRLRRTLIR
 RYANLGNVLIILRSVSTAVYKRFPSAQLHVQAGFMTPAEHKQLEKLSLPHNMFVWPVWFANLSMKAWLG
 GRIRDPILLQSLNEMNLTQTQGHLYAYDWISIPLVYTVVTVAVYSFFLTCLVGRQFLNPAKAYPGH
 ELDLVVPVFTFLQFFFYVWLVKVSLLAVDEMHQDLPRMEPDMYWNKPEPQPPYTAASAQFRRASFMGST
 FNI SLNKEEMEFQPNQEDEEDA HAGIIGRFLGLQSHDHPHPRANSRKLKLLWPKRESLLHEGLPKNHKAA
 KQNVRGQEDNKAWKLKAVDAFKSAPLYQRPGYYSAPQTPLSPTPMFFPLEPSAPSKLHSVTGIDTKDKS
 LKTVSSGAKKSFELLSESDGALMEHPEVSQVRRKTVFNLDMPEIPENHLKEPLEQSPTNIHTTLKDH
 MDPYWALENRDEAHS
TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGEGTPEQGRMTNKMSTKGALTFSPYLLSHV
 MGYGFYHFGTYPSTYENPFLHAINNGGYTNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPED
 SVIFTDKIIRSNATVEHLHPMGDNDLDGSFTRTFLRDGGYSSVVD SHMHFKSAIHPSILQNGGPMFA
 FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV

Restriction Sites:

Sgfl-Mlul

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).

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]