

Product datasheet for **RC218436**

Bestrophin 3 (BEST3) (NM_152439) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Bestrophin 3 (BEST3) (NM_152439) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Bestrophin 3
Synonyms:	VMD2L3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC218436 representing NM_152439
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGACAACAGATGAAAGGAAATTATTCAACCACCTCAAGTCTCCTCATCTGAAATATTGGTTCCATTCA
 TCTGGTTTGAAATCTTGCAACTAAAGCCCGGAATGAAGGTAGAATCAGAGACAGTGTTGATCTGCAATC
 ATTGATGACTGAAATGAATCGATACCGCTCTTGGTGCAGCCTCTTATTCCGTTATGACTGGGTTGGGATT
 CCGCTGGTTTACACCCAGGTAGCAGAGCAGCTTATCAACCCTTTTGGAGAAGATGATGATGATTTTGAAA
 CTAAGTGGTGCATTGACAGAAATTTGCAGGTCTCTTTTTAGCTGTGGACGAAATGCACATGAGCTTACC
 CAAGATGAAGAAGGACATTTACTGGGACGATTCTGCTGCTCGCCACCATAACACATTGGCAGCTGCTGAC
 TACTGCATACCCTCATTCTGGGGTCAACAGTCCAGATGGGGCTGTCTGGGTCCGACTTTCCTGACGAGG
 AGTGGCTGTGGGATTATGAGAAGCATGGCCATCGGCATCCATGATAAGAAGAGTCAAGCGGTTCTGAG
 TGCCACGAACACCCCTCCAGCCCAGAAGAAGCTACAGGAGGCAGACAAGTACAGCTCCATGTTCC
 TTACCCCGAGATGACCTCAGCCCAGCCAGGGACCTACTGGATGTGCCCTCAAGAAACCCCCAGGGCCT
 CACCCACCTGGAAGAAATCCTGTTCCAGAAAGGAGCCACGCTGCATTCAGCATGGGAGAGCTGTC
 CACCATCAGGGAGACCAGCCAGACAAGCACTTTACAGAGCCTGACCCACAGTCCAGTGTGAGAACTTCC
 CCCATCAAAATGCCACTGGTACCTGAGGTATTGATCACAGCAGCCGAAGCACCAGTGGCCACATCAGGGG
 GCTACCACCATGATTCCGCTACCTCCATCTTGAGCTCTGAGTTTACAGGGGTTACGCCAAGCAAGACTGA
 GCAGCAGCAGGGCCCCATGGGATCCATCCTGTCTCCCTCAGAGAAGGAGACACCTCCTGGAGGCCCCAGT
 CCCCAGACAGTTTACGCCAGCCTGAGGAAAATATTTCAACTGTGAAGAAGACCCTGGTGATACCTTTC
 TAAAAGGTGGAGTCTTCCGGGATTCCTGGGGTCCAGCCACACTCCCTGGGAAACCTAAGTCCAGACCC
 CATGAGCTCTCAGCCAGCTCTTTAATTGACACAGAAACATCCTCAGAGATCAGTGGGATCAACATTGTG
 GCTGGCTCTCGAGTCTTCTGATATGCTGATTTAATGGAAAACCTGGACACCAAGGAAACAGATATCA
 TAGAGCTGAACAAGGAACTGAGGAATCACCCAAA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC218436 representing NM_152439
 Red=Cloning site Green=Tags(s)

MTTDERKLFNHLKSPHLKYWVPIWFGNLTAKARNEGRIRDSVDLQSLMTEMNRYRSWCSLLFGYDWVGI
 PLVYTQVAEQLINPFGEDDDDFETNWCIDRNLQVSLLAVDEMHMSLPKMKKDIYWDDSAARPPYTLAAAD
 YCIPSLGSTVQMGLSGSDFPDEEWLWDYEKHGRHSMIRRVKRFLSAHEHPSSPRRRSYRRQTSDSMSF
 LPRDDLSPARDLLDVPSRNPTRASPTWKKSCFPEGSPTLHFSMGELSTIRETSQSTLQSLTPQSSVRS
 PIKMPVPEVLITAAEAPVPTSGGYHDSATSILSSEFTGVQPSKTEQQQGPMGSILSPSEKETPPGGPS
 PQTVSASAEENIFNCEEDPGDFTLKRWSLPGFLGSSHTSLGNLSPDPMSSQPALLIDTETSSEISGINIV
 AGSRVSSDMLYLMENLDTKETDIIELNKETEESPK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6492_b07.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_152439

ORF Size: 1365 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_152439.3](#), [NP_689652.2](#)

RefSeq Size: 2898 bp

RefSeq ORF: 1368 bp

Locus ID: 144453

UniProt ID: [Q8N1M1](#)

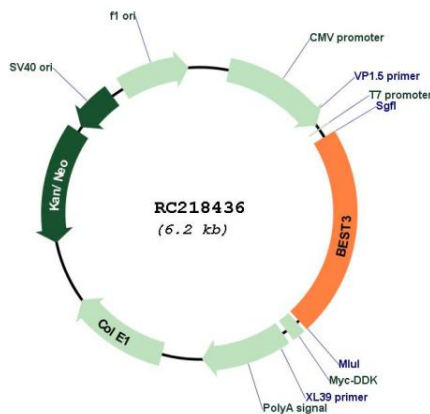
Cytogenetics: 12q15

Protein Families: Ion Channels: Other, Transmembrane

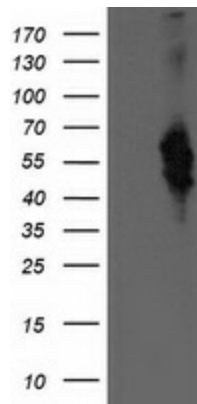
MW: 50.8 kDa

Gene Summary: BEST3 belongs to the bestrophin family of anion channels, which includes BEST1 (MIM 607854), the gene mutant in vitelliform macular dystrophy (VMD; MIM 153700), and 2 other BEST1-like genes, BEST2 (MIM 607335) and BEST4 (MIM 607336). Bestrophins are transmembrane (TM) proteins that share a homology region containing a high content of aromatic residues, including an invariant arg-phe-pro (RFP) motif. The bestrophin genes share a conserved gene structure, with almost identical sizes of the 8 RFP-TM domain-encoding exons and highly conserved exon-intron boundaries. Each of the 4 bestrophin genes has a unique 3-prime end of variable length (Stohr et al., 2002 [PubMed 12032738]; Tsunenari et al., 2003 [PubMed 12907679]).[supplied by OMIM, Mar 2008]

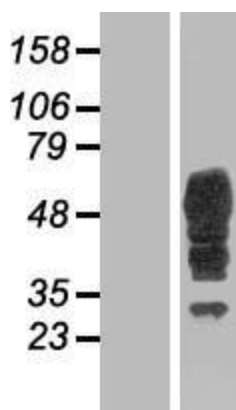
Product images:



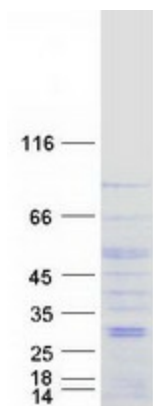
Circular map for RC218436



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY BEST3 (Cat# RC218436, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-BEST3 (Cat# [TA501979]). Positive lysates [LY407540] (100ug) and [LC407540] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY407540]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC218436 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified BEST3 protein (Cat# [TP318436]). The protein was produced from HEK293T cells transfected with BEST3 cDNA clone (Cat# RC218436) using MegaTran 2.0 (Cat# [TT210002]).