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Product datasheet for MG208579

Ehd3 (NM_020578) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Ehd3 (NM_020578) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Ehd3
Synonyms:	Ehd2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

View online »

ORF Nucleotide Sequence:

>MG208579 representing NM_020578
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGTTCAGTTGGCTGGGTAACGATGATCGCCGCAAGAAGGACCCTGAGGTCTTCCAGACGGTGAGCGATG
GACTCAAAAAACTCTACAAGACCAAGCTGCTGCCTCTGGAAGAGTATTACCGCTTCCACGAGTTCCACTC
GCCCGCCCTGGAAGATGCTGATTTCGACAACAAGCCCATGGTCCTGTTGGTGGGCCAGTACTCTACCGGC
AAGACCACCTTCATCAGGTACCTGCTGGAACAGGATTTTCCAGGCATGAGGATTGGGCCTGAGCCGACCA
CTGATTCCTTCATAGCAGTGATGCAGGGAGATGTGGAGGGGATCATTCCCGGGAATGCCTTGGTGGTGGA
TCCAAAGAAACCCTTCAGAAAGCTCAACGCCTTTGGCAACGCCTTCCTGAACAGGTTTGTGTGTGCCCAG
CTGCCCAACGCCGTGCTTGAAAGTATCAGTGTGATCGACACACCGGGGATCCTCTCTGGGGAGAAGCAGA
GGATCAGCCGAGGGTATGATTTTGCTGCGGTCCTCGAATGGTTTGCTGAGCGGGTGGACCGAATTATCCT
ACTCTTCGACGCCCACAAGCTGGACATCTCCGATGAGTTCTCAGAAGTCATCAAGGCTCTCAAGAACCAT
GAGGACAAGATGCGCGTAGTGTTGAACAAAGCTGACCAGATCGAGACCCAGCAGCTGATGCGAGTATACG
GAGCCCTCATGTGGTCCCTGGGGAAGATCGTGAACACCCCCGAGGTGATCCGGGTCTACATTGGCTCCTT
CTGGTCCCACCCACTCCTCATTCCCGACAACCGGAAGCTCTTTGAAGCTGAAGAGCAAGACTTGTTCAGA
GACATTCAGAGTCTACCCCGTAATGCTGCTCTTCGAAAGCTCAACGATCTCATCAAGAGAGCCCGGCTGG
CCAAGGTCCACGCCTACATCATCAGCTCCTTGAAGAAGGAGATGCCCTCAGTGTTTGGGAAGGACACCAA
AAAGAAAGAACTGGTGAACAACCTGGCTGAGATCTATGGCCGGATTGAGCGAGAACACCAGATCTCCCCT
GGAGACTTCCCCAACCTGAAGAGGATGCAGGACCAGCTGCAGGCCCAGGACTTCAGCAAATTCCAGCCAC
TGAAGAGCAAGCTGCTGGAAGTGGTTGATGATATGCTGGCTCATGACATTGCCCAGCTCATGGTGCTGGT
GCGCCAGGAAGAGACCCAACGGCCTGTCCAGATGGTGAAGGGCGGAGCATTTGAGGGAACCTTACAAGGC
CCCTTCGGGCACGGCTATGGAGAGGGAGCTGGGGAGGGCATCGATGATGCCGAGTGGGTGGTGGCGCGGG
ACAAGCCTATGTATGATGAGATCTTCTACACCTTATCCCCAGTGGATGGCAAGATCACAGGTGCCAACGC
CAAGAAGGAGATGGTGCGCTCCAAGTTGCCCAACAGCGTGCTGGGCAAGATCTGGAAGCTAGCCGACATT
GACAAGGATGGCATGTTGGATGACGAGGAGTTTGCCCTGGCCAACCACCTTATCAAAGTCAAGCTAGAGG
GGCATGAGCTGCCCAGTGAGCTACCTGCCCACCTCCTCCCTCCATCTAAGAGGAAAGTATCAGAA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

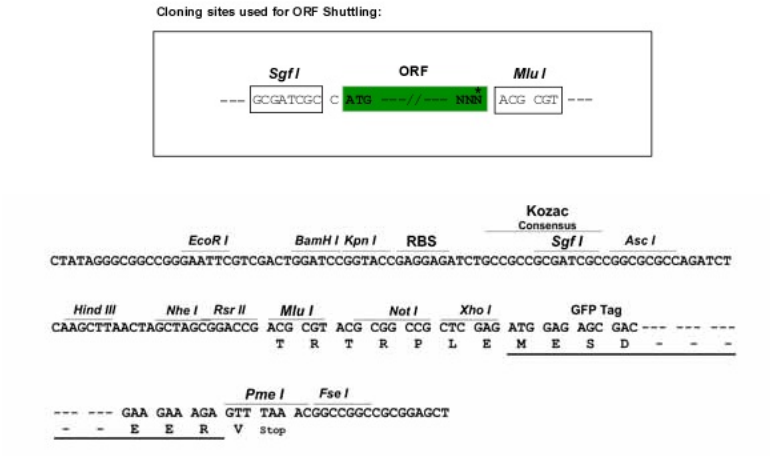
>MG208579 representing NM_020578
Red=Cloning site Green=Tags(s)

MFSWLGNDDRRKKDPEVFQTVSDGLKKLYKTKLLPLEEYYRFHEFHSPALEDADFDNKPMVLLVGQYSTG
KTTFIRYLLEQDFPGMRIGPEPTTDSFIAVMQGDVEGIIPGNALVVDPKKPFRKLNAFGNAFLNRFVCAQ
LPNAVLESISVIDTPGILSGEKQRISRGYDFAAVLEWFAERVDRIILLFDAHKLDISDEFSEVIKALKNH
EDKMRVVLNKADQIETQQLMRVYGALMWSLGKIVNTPEVIRVYIGSFWSHPLLIPDNRKLFEAEEQDLFR
DIQSLPRNAALRKLNDLIKRARLAKVHAYIISSLKKEMPSVFGKDTKKKELVNNLAEIYGRIEREHQISP
GDFPNLKRMQDQLQAQDFSKFQPLKSKLLEVVDDMLAHDIAQLMVLVRQEETQRPVQMVKGGAFEGTLQG
PFGHGYGEGAGEGIDDAEWVVARDKPMYDEIFYTLSPVDGKITGANAKKEMVRSKLPNSVLGKIWKLADI
DKDGMLDDEEFALANHLIKVKLEGHELPSELPAHLLPPSKRKVSE

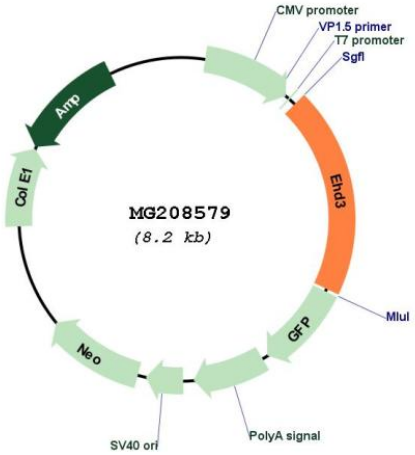
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN:	NM_020578
ORF Size:	1605 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_020578.3
RefSeq Size:	3635 bp
RefSeq ORF:	1608 bp
Locus ID:	57440
UniProt ID:	Q9QXY6
Cytogenetics:	17 45.2 cM

Gene Summary: ATP- and membrane-binding protein that controls membrane reorganization/tubulation upon ATP hydrolysis. In vitro causes tubulation of endocytic membranes (By similarity). Binding to phosphatidic acid induces its membrane tubulation activity (PubMed:26896729). Plays a role in endocytic transport. Involved in early endosome to recycling endosome compartment (ERC), retrograde early endosome to Golgi, and endosome to plasma membrane (rapid recycling) protein transport. Involved in the regulation of Golgi maintenance and morphology (By similarity). Involved in the recycling of internalized D1 dopamine receptor (By similarity). Plays a role in cardiac protein trafficking probably implicating ANK2. Involved in the ventricular membrane targeting of SLC8A1 and CACNA1C and probably the atrial membrane localization of CACNA1GG and CACNA1H implicated in the regulation of atrial myocyte excitability and cardiac conduction (PubMed:20489164, PubMed:24759929, PubMed:25825486). In conjunction with EHD4 may be involved in endocytic trafficking of KDR/VEGFR2 implicated in control of glomerular function (PubMed:21408024). Involved in the rapid recycling of integrin beta-3 implicated in cell adhesion maintenance (By similarity). Involved in the unidirectional retrograde dendritic transport of endocytosed BACE1 and in efficient sorting of BACE1 to axons implicating a function in neuronal APP processing. Plays a role in the formation of the ciliary vesicle, an early step in cilium biogenesis; possibly sharing redundant functions with Ehd1 (PubMed:25686250).[UniProtKB/Swiss-Prot Function]