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Product datasheet for RR206638

Ehd1 (NM_001011939) Rat Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Ehd1 (NM_001011939) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Ehd1
Synonyms:	RGD1306960
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin

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ORF Nucleotide Sequence:

>RR206638 representing NM_001011939
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGTTCAGCTGGGTGAGCAAGGATGCCCGCCGCAAGAAGGAGCCGGAGCTCTTCCAGACGGTGGCCGAGG
GGCTGCGGCAGCTGTACGCGCAGAAGCTGCTGCCGCTGGAGGAGCACTATCGCTTCCACGAGTTCCATTC
GCCGGCTCTGGAGGACGCTGACTTCGACAACAAACCCATGGTGCTCCTGGTCGGCCAGTACAGCACCGGC
AAGACCACCTTCATCCGCCACTTGATCGAGCAGGACTTCCCAGGGATGCGCATCGGGCCGGAGCCCACCA
CCGACTCCTTCATCGCAGTCATGCATGGCCCCACCGAGGGCGTGGTGCCCGGCAACGCGCTCGTCGTGGA
CCCGCGGCGCCCCTTCCGCAAGCTTAACGCCTTCGGCAACGCCTTCCTCAACAGGTTCATGTGTGCACAG
CTGCCTAACCCAGTATTGGACAGCATTAGCATCATTGACACTCCTGGAATCCTGTCTGGAGAGAAGCAGC
GCATCAGCCGAGGTTATGACTTTGCGGCTGTCCTTGAGTGGTTCGCAGAGCGTGTGGACCGCATCATTCT
GCTCTTTGACGCCCACAAGCTAGACATCTCAGATGAATTTTCAGAAGTCATCAAGGCCCTCAAAAATCAC
GAGGACAAGATCCGTGTGGTGCTGAACAAAGCTGACCAAATTGAGACACAGCAGCTGATGCGAGTGTACG
GAGCTCTCATGTGGTCGCTGGGGAAGATCATCAACACCCCTGAGGTGGTCCGTGTCTACATTGGCTCCTT
CTGGTCACACCCACTGCTCATCCCTGACAACCGGAAGCTCTTTGAGGCAGAGGAGCAGGACCTCTTCAAA
GACATCCAGTCTCTACCAAGAAATGCTGCCCTTAGGAAGCTCAATGACTTAATCAAGCGGGCCAGGCTGG
CCAAGGTCCATGCCTACATCATCAGCTCCCTCAAGAAGGAGATGCCCAATGTCTTTGGGAAAGAGAGCAA
GAAGAAAGAGCTGGTGAACAACTTGGGAGAGATCTACCAGAAAATTGAGCGGGAGCACCAGATCTCCTCC
GGCGACTTCCCAAGCCTGCGTAAGATGCAGGAACTTCTGCAGACGCAGGACTTCAGCAAGTTCCAGGCCT
TGAAGCCCAAGCTGCTGGATACGGTGGATGATATGCTGGCCAACGATATAGCTCGGCTGATGGTGATGGT
GCGCCAGGAGGAGTCCCTGATGCCCTCACAGGCTGTGAAGGGTGGTGCTTTTGATGGCACCATGAATGGG
CCCTTTGGGCATGGGTATGGCGAGGGGGCTGGCGAGGGCATTGATGATGTTGAGTGGGTAGTTGGCAAGG
ACAAGCCCACCTATGATGAGATCTTCTACACACTGTCTCCTGTCAATGGCAAGATCACGGGCGCTAATGC
CAAGAAGGAGATGGTGAAGTCCAAGCTGCCTAACACAGTGCTGGGGAAGATCTGGAAGCTGGCTGATGTG
GACAAGGATGGCCTGCTAGATGACGAGGAGTTTGCCCTGGCCAACCACCTTATCAAGGTCAAGCTAGAGG
GCCATGAGCTGCCCGCTGACCTTCCTCCACATCTCATCCCACCCTCCAAACGGAGGCATGAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

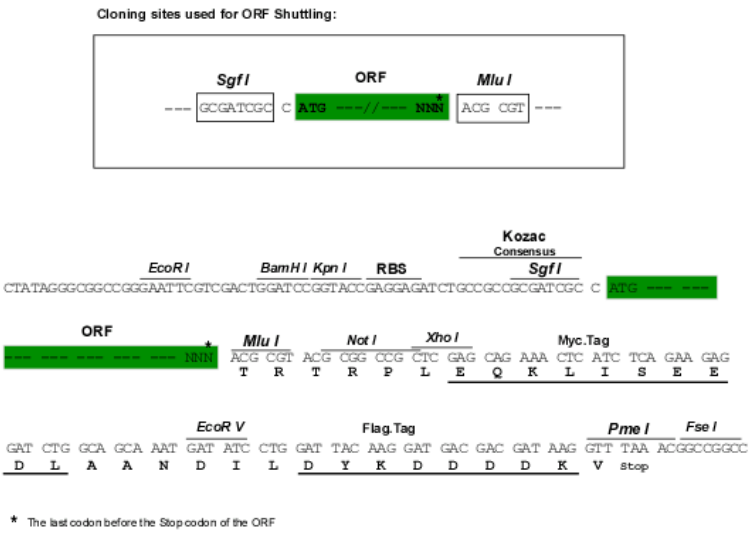
>RR206638 representing NM_001011939
Red=Cloning site Green=Tags(s)

MFSWVSKDARRKKEPELFQTVAEGLRQLYAQKLLPLEEHYRFHEFHSPALEDADFDNKPMVLLVGQYSTG
KTTFIRHLIEQDFPGMRIGPEPTTDSFIAVMHGPTEGVVPGNALVVDPRRPFRKLNAFGNAFLNRFMCAQ
LPNPVLDSISIIDTPGILSGEKQRISRGYDFAAVLEWFAERVDRIILLFDAHKLDISDEFSEVIKALKNH
EDKIRVVLNKADQIETQQLMRVYGALMWSLGKIINTPEVVRVYIGSFWSHPLLIPDNRKLFEAEEQDLFK
DIQSLPRNAALRKLNDLIKRARLAKVHAYIISSLKKEMPNVFGKESKKKELVNNLGEIYQKIEREHQISS
GDFPSLRKMQELLQTQDFSKFQALKPKLLDTVDDMLANDIARLMVMVRQEESLMPSQAVKGGAFDGTMNG
PFGHGYGEGAGEGIDDVEWVVGKDKPTYDEIFYTLSPVNGKITGANAKKEMVKSKLPNTVLGKIWKLADV
DKDGLLDDEEFALANHLIKVKLEGHELPADLPPHLIPPSKRRHE

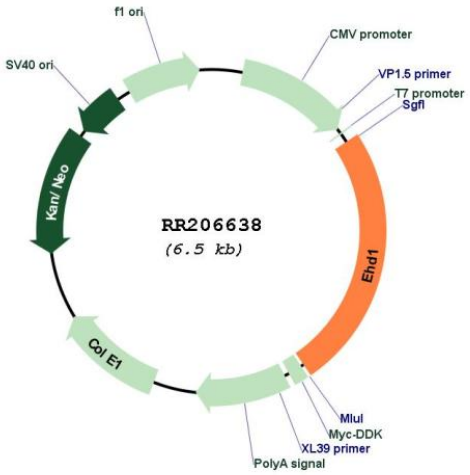
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN:	NM_001011939
ORF Size:	1602 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_001011939.2, NP_001011939.1
RefSeq Size:	3250 bp
RefSeq ORF:	1605 bp
Locus ID:	293692
UniProt ID:	Q641Z6
Cytogenetics:	1q43
MW:	60.6 kDa

Gene Summary: ATP- and membrane-binding protein that controls membrane reorganization/tubulation upon ATP hydrolysis. In vitro causes vesiculation of endocytic membranes (By similarity). Acts in early endocytic membrane fusion and membrane trafficking of recycling endosomes (By similarity). Recruited to endosomal membranes upon nerve growth factor stimulation, indirectly regulates neurite outgrowth (PubMed:23572513). Plays a role in myoblast fusion (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 (By similarity). Plays a role in the formation of the ciliary vesicle (CV), an early step in cilium biogenesis. Proposed to be required for the fusion of distal appendage vesicles (DAVs) to form the CV by recruiting SNARE complex component SNAP29. Is required for recruitment of transition zone proteins CEP290, RPGRIP1L, TMEM67 and B9D2, and of IFT20 following DAV reorganization before Rab8-dependent ciliary membrane extension. Required for the loss of CCP110 form the mother centriole essential for the maturation of the basal body during ciliogenesis (By similarity).[UniProtKB/Swiss-Prot Function]