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Product datasheet for RC222418

C9orf72 (NM_145005) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	C9orf72 (NM_145005) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	C9orf72
Synonyms:	ALSFTD; DENND9; DENNL72; FTDALS; FTDALS1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

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>RC222418 representing NM_145005
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGTCGACTCTTTGCCCACCGCCATCTCCAGCTGTTGCCAAGACAGAGATTGCTTTAAGTGGCAAATCAC
CTTTATTAGCAGCTACTTTTGCTTACTGGGACAATATTCTTGGTCCTAGAGTAAGGCACATTTGGGCTCC
AAAGACAGAACAGGTACTTCTCAGTGATGGAGAAATAACTTTTCTTGCCAACCACACTCTAAATGGAGAA
ATCCTTCGAAATGCAGAGAGTGGTGCTATAGATGTAAAGTTTTTTGTCTTGTCTGAAAAGGGAGTGATTA
TTGTTTCATTAATCTTTGATGGAAACTGGAATGGGGATCGCAGCACATATGGACTATCAATTATACTTCC
ACAGACAGAACTTAGTTTCTACCTCCCACTTCATAGAGTGTGTGTTGATAGATTAACACATATAATCCGG
AAAGGAAGAATATGGATGCATAAGGAAAGACAAGAAAATGTCCAGAAGATTATCTTAGAAGGCACAGAGA
GAATGGAAGATCAGGGTCAGAGTATTATTCCAATGCTTACTGGAGAAGTGATTCCTGTAATGGAACTGCT
TTCATCTATGAAATCACACAGTGTTCCTGAAGAAATAGATATAGCTGATACAGTACTCAATGATGATGAT
ATTGGTGACAGCTGTCATGAAGGCTTTCTTCTCAAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA
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Protein Sequence:

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>RC222418 representing NM_145005
Red=Cloning site Green=Tags(s)

MSTLCPPPSPAVAKTEIALSGKSPLLAATFAYWDNILGPRVRHIWAPKTEQVLLSDGEITFLANHTLNGE
ILRNAESGAIDVKFFVLSEKGVIIVSLIFDGNWNGDRSTYGLSIILPQTELSFYLPLHRVCVDRLTHIR
KGRIWMHKERQENVQKIILEGTERMEDQGQSIIPMLTGEVIPVMELLSSMKSHSVPEEIDIADTVLNDDD
IGDSCHEGFLLK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV
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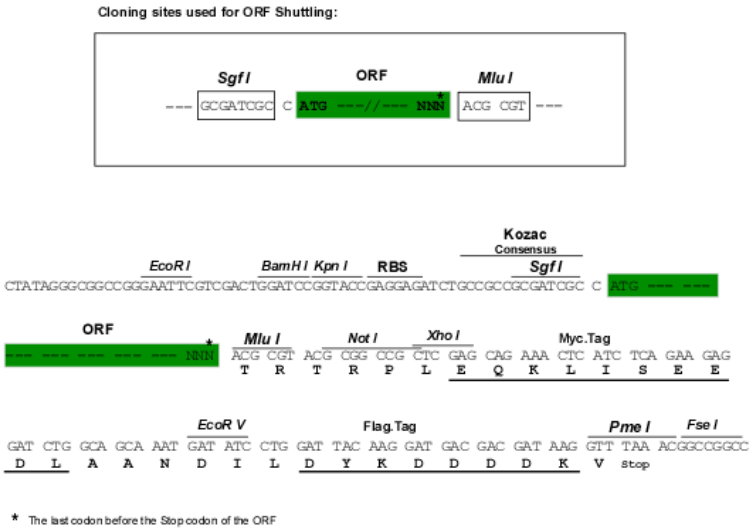
Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_145005

ORF Size: 666 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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.

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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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_145005.6
RefSeq Size:	1882 bp
RefSeq ORF:	669 bp
Locus ID:	203228
UniProt ID:	Q96LT7
Cytogenetics:	9p21.2
MW:	24.6 kDa
Gene Summary:	The protein encoded by this gene plays an important role in the regulation of endosomal trafficking, and has been shown to interact with Rab proteins that are involved in autophagy and endocytic transport. Expansion of a GGGGCC repeat from 2-22 copies to 700-1600 copies in the intronic sequence between alternate 5' exons in transcripts from this gene is associated with 9p-linked ALS (amyotrophic lateral sclerosis) and FTD (frontotemporal dementia) (PMID: 21944778, 21944779). Studies suggest that hexanucleotide expansions could result in the selective stabilization of repeat-containing pre-mRNA, and the accumulation of insoluble dipeptide repeat protein aggregates that could be pathogenic in FTD-ALS patients (PMID: 23393093). Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Jul 2016]

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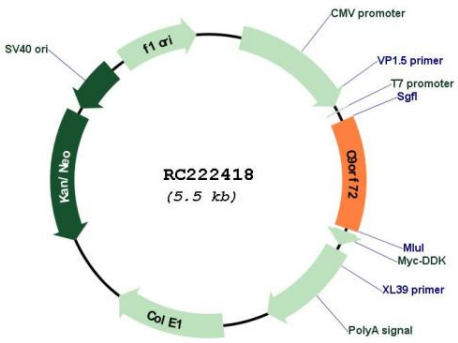
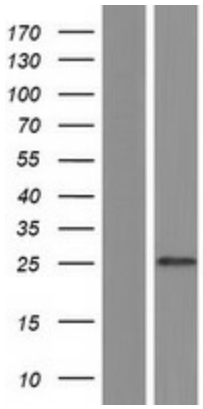
Product images:



Circular map for RC222418



Western blot validation of overexpression lysate (Cat# [LY408142]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC222418 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).

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