

Product datasheet for **RG209700**

C9orf72 (NM_018325) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	C9orf72 (NM_018325) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	C9orf72
Synonyms:	ALSFTD; DENND9; DENNL72; FTDALS; FTDALS1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG209700 representing NM_018325
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGTCGACTCTTTGCCACCGCCATCTCCAGCTGTTGCCAAGACAGAGATTGCTTTAAGTGGCAAATCAC
 CTTTATTAGCAGCTACTTTTGTCTACTGGGACAATATTCTTGGTCTAGAGTAAGGCACATTTGGGCTCC
 AAAGACAGAACAGGTACTTCTCAGTGATGGAGAAATAACTTTTCTTGCCAACCACACTCTAAATGGAGAA
 ATCCTTCGAAATGCAGAGAGTGGTGTATAGATGTAAAGTTTTTGTCTTGTCTGAAAAGGGAGTGATTA
 TTGTTTCATTAATCTTTGATGGAAGTGGAAATGGGGATCGCAGCACATATGGACTATCAATTATACTTCC
 ACAGACAGAACTAGTTTCTACCTCCACTTCATAGAGTGTGTGTTGATAGATTAACACATATAATCCGG
 AAAGGAAGAATATGGATGCATAAGGAAAGACAAGAAAATGTCCAGAAGATTATCTTAGAAGGCACAGAGA
 GAATGGAAGATCAGGGTCAGAGTATTATCCAATGCTTACTGGAGAAGTGATTCTGTAAATGGAAGTCT
 TTCATCTATGAAATCACACAGTGTCTCTGAAGAAATAGATATAGCTGATACAGTACTCAATGATGATGAT
 ATTGGTGACAGCTGTCATGAAGGCTTCTTCTCAATGCCATCAGCTCACACTTGCAAACCTGTGGCTGTT
 CCGTTGTAGTAGGTAGCAGTGCAGAGAAAAGTAAATAAGATAGTCAGAACATTATGCCTTTTTCTGACTCC
 AGCAGAGAGAAAAATGCTCCAGGTATGTGAAGCAGAATCATATTTAAATATGAGTCAGGGCTCTTTGTA
 CAAGGCCCTGCTAAAGGATCAACTGGAAGCTTTGTGCTGCCTTTCCGGCAAGTCATGTATGCTCCATATC
 CCACCACACATAGATGTGGATGTCAATACTGTGAAGCAGATGCCACCCTGTCAATGAACATATTTATA
 TCAGCGTAGATACATGAGATCCGAGCTGACAGCCTTCTGGAGAGCCACTTCAGAAGAAGACATGGCTCAG
 GATACGATCATCTACACTGACGAAAGCTTTACTCCTGATTTGAATATTTTCAAGATGTCTTACACAGAG
 AACTCTAGTAAAGCCTTCTCGATCAGTCTTTCAGCTGAAACCTGGCTTATCTCTCAGAAGTACTTT
 CCTTGCACAGTTTCTACTTGTCTTTCACAGAAAAGCCTTGACACTAATAAAATATATAGAAGACGATACG
 CAGAAGGGAAAAAAGCCCTTTAAATCTCTCGGAACCTGAAGATAGACCTTGATTTAACAGCAGAGGGCG
 ATCTTAACATAATAATGGCTCTGGCTGAGAAAATTAACCAGGCCTACACTCTTTTATCTTTGGAAGACC
 TTTCTACACTAGTGTGCAAGAACGAGATGTTCTAATGACTTTT

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG209700 representing NM_018325
 Red=Cloning site Green=Tags(s)

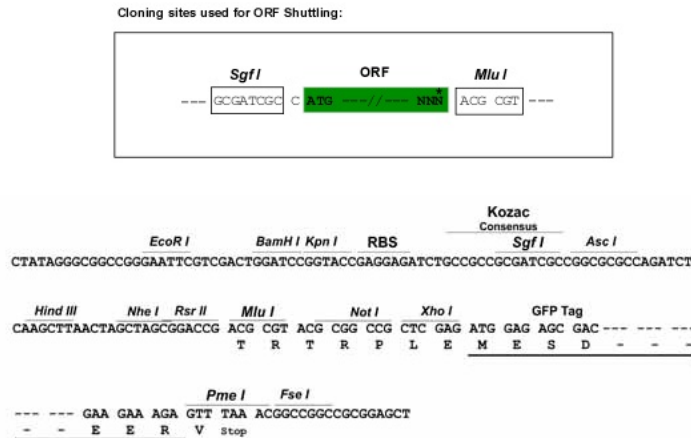
MSTLCPPSPAVAKTEIALSGKSPLLAATFAYWDNILGPRVRHIWAPKTEQVLLSDGEITFLANHTLN
 ILRNAESGAIDVKFFVLSEKGVIIIVSLIFDGNWNGDRSTYGLSIIILPQTELSFYLPVLRVCDRLTHIIR
 KGRIWMHKERQENVQKIIILEGTERMEDQGSIIIPMLTGEVIVPMELLSMKSHSVPEEIDIADTVLNDDD
 IGDSCHEGFLLNAISSHLQTCGCSVVVGSAAEKVNKIVRTLCLFLTPAERKCSRLCEAESEFKYESGLFV
 QGLLKDSTGFSVLPFRQVMYAPYPTTHIDVDVNTVKQMPPCHEHIYNQRRYMRSELTAFWRATSEEDMAQ
 DTIIYTDSESTPDLNIFQDVLHRDTLVKAFLDQVFLKPLSLRSTFLAQFLLVLRKALTLIKYIEDDT
 QKGGKPKFSLRNLKIDLDTAEGDLNIIIMALAEKIKPGLHSFIFGRPFYTSVQERDVLMTF

TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



ACCN: NM_018325

ORF Size: 1443 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.

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).

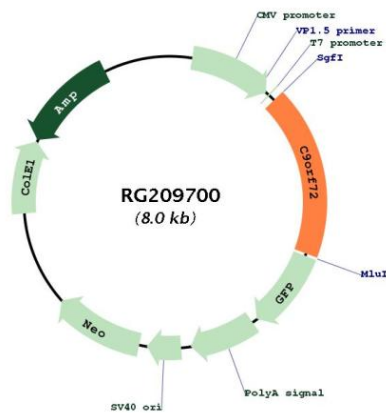
Reconstitution Method:

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_018325.5](#)
RefSeq Size: 3246 bp
RefSeq ORF: 1446 bp
Locus ID: 203228
UniProt ID: [Q96LT7](#)
Cytogenetics: 9p21.2

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]

Product images:



Circular map for RG209700