

## Product datasheet for SC111893

### C9orf72 (NM\_018325) Human Untagged Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** C9orf72 (NM\_018325) Human Untagged Clone  
**Tag:** Tag Free  
**Symbol:** C9orf72  
**Synonyms:** ALSFTD; DENND9; DENNL72; FTDALS; FTDALS1  
**Mammalian Cell Selection:** None  
**Vector:** [pCMV6-XL5](#)  
**E. coli Selection:** Ampicillin (100 ug/mL)

**Fully Sequenced ORF:** >OriGene ORF sequence for NM\_018325 edited  
 ATGTCGACTCTTTGCCACC GCCATCTCCAGCTGTTGCCAAGACAGAGATTGCTTTAAGT  
 GGCAAATCACCTTTATTAGCAGCTACTTTGCTTACTGGGACAATATTCTTGGTCCCTAGA  
 GTAAGGCACATTTGGGCTCCAAAGACAGAACAGGTA CTCTCAGTGATGGAGAAATAACT  
 TTTCTTGCCAACCACTCTAAATGGAGAAATCCTTCGAAATGCAGAGAGTGGTGTCTATA  
 GATGTAAGTTTTTTGTCTGTCTGAAAAGGGAGTGATTATTGTTTCATTAATCTTTGAT  
 GGAAACTGGAAATGGGGATCGCAGCACATATGGACTATCAATTATACTTCCACAGACAGAA  
 CTTAGTTTCTACCTCCCCTTCATAGAGTGTGTGTTGATAGATTAACACATATAATCCGG  
 AAAGGAAGAATATGGATGCATAAGGAAAGACAAGAAAATGCCAGAAGATTATCTTAGAA  
 GGCACAGAGAGAATGGAAGATCAGGGTCAGAGTATTATTCCAATGCTTACTGGAGAAGTG  
 ATTCCTGTAATGGAAGTCTTTCATCTATGAAATCACACAGTGTTCCTGAAGAAATAGAT  
 ATAGCTGATACAGTACTCAATGATGATGATATTGGTGACAGCTGTCATGAAGGCTTCTT  
 CTCAATGCCATCAGCTCACACTTGCAAACCTGTGGCTGTTCCGTTGTAGTAGGTAGCAGT  
 GCAGAGAAAGTAAATAAGATAGTCAGAACATTATGCCTTTTTCTGACTCCAGCAGAGAGA  
 AAATGCTCCAGGTTATGTGAAGCAGAAATCATCATTTAAATATGAGTCAGGGCTCTTTGTA  
 CAAGGCCCTGCTAAAGGATTCAACTGGAAGCTTTGTGCTGCCTTTCCGGCAAGTCATGAT  
 GCTCCATATCCCACCACACATAGATGTGGATGTCAATACTGTGAAGCAGATGCCACCC  
 TGTCATGAACATATTTATAATCAGCGTAGATACATGAGATCCGAGCTGACAGCCTTCTGG  
 AGAGCCACTTCAGAAGAAGACATGGCTCAGGATACGATCATCTACACTGACGAAAGCTTT  
 ACTCCTGATTTGAATATTTTTCAAGATGTCTTACACAGAGACACTCTAGTGAAAGCCTTC  
 CTGGATCAGGTCTTTCAGCTGAAACCTGGCTTATCTCTCAGAAGTACTTTCTTGCACAG  
 TTTCTACTTGTCTTACAGAAAAGCCTTGACACTAATAAAAATATATAGAAGACGATACG  
 CAGAAGGGAAAAAGCCCTTTAAATCTCTTCGGAACCTGAAGATAGACCTTGATTTAACA  
 GCAGAGGGCGATCTTAACATAAATGGCTCTGGCTGAGAAAAATTAACCAGGCCTACAC  
 TCTTTTATCTTTGGAAGACCTTTCTACACTAGTGTGCAAGAACGAGATGTTCTAATGACT  
 TTTTAA



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<b>Restriction Sites:</b>	NotI-NotI
<b>ACCN:</b>	NM_018325
<b>Insert Size:</b>	3400 bp
<b>OTI Disclaimer:</b>	<p>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 <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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. <a href="#">More info</a></p>
<b>OTI Annotation:</b>	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>RefSeq:</b>	<a href="#">NM_018325.1</a> , <a href="#">NP_060795.1</a>
<b>RefSeq Size:</b>	3246 bp
<b>RefSeq ORF:</b>	1446 bp
<b>Locus ID:</b>	203228
<b>UniProt ID:</b>	<a href="#">Q96LT7</a>
<b>Cytogenetics:</b>	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]

Transcript Variant: This variant (2) differs in the 5' UTR compared to variant 3. Both variants 2 and 3 encode the same protein.