

Product datasheet for **SC102059**

C9orf72 (AK001971) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	C9orf72 (AK001971) Human Untagged Clone
Tag:	Tag Free
Symbol:	C9orf72
Synonyms:	ALSFTD; FTDALS; FTDALS1
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for AK001971, the custom clone sequence may differ by one or more nucleotides

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ATGCCACCCTGTCATGAACATATTTATAATCAGCGTAGATACATGAGATCCGAGCTGACAGCCTTCTGGA  
GAGCCACTTCAGAAGAAGACATGGCTCAGGATACGATCATCTACACTGACGAAAGCTTTACTCCTGATTT  
GAATATTTTTCAAGATGTCTTACACAGAGACTCTAGTGAAAGCCTTCTGGATCAGGTCTTTCAGCTG  
AAACCTGGCTTATCTCTCAGAAGTACTTTCCTTGACAGTTTCTACTTGCCTTACAGAAAAGCCTTGA  
CACTAATAAAATATATAGAAGACGATACGCAGAAGGGAAAAAGCCCTTAAATCTTTCGGAACCTGAA  
GATAGACCTTGATTTAACAGCAGAGGGCGATCTTAACATAATAATGGCTCTGGCTGAGAAAATTAACCA  
GGCCTACACTCTTTTATCTTTGGAAGACCTTCTACACTAGTGTGCAAGAACGAGATGTTCTAATGACTT  
TTTAA
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5' Read Nucleotide Sequence:	<p>>OriGene 5' read for AK001971 unedited AATACGACTCACTATAGGGCGGCCGCAATTCGGCACGAGGCTTTTTCTGACTCCAGCAG AGAGAAAATGCTCCAGGTTATGTGAAGCAGAATCATCATTTAAATATGAGTCAGGGCTCT TTGTACAAGGCCGTGCTAAAGGATTCAACTGGAAGCTTTGTGCTGCCTTTCCGGCAAGTCA TGTATGCTCCATATCCCACCACACATAGATGTGGATGTCAATACTGTGAAGCAGATGC CACCTGTATGAACATATTTATAATCAGCGTAGATAACATGAGATCCGAGCTGACAGCCT TCTGGAGAGCCACTTCAGAAGAAGACATGGCTCAGGATACGATCATCTACACTGACGAAA GCTTTACTCCTGATTTGAATATTTTCAAGATGTCTTACACAGAGACACTCTAGTGAAAG CCTTCTGGATCAGGCTTTTCTGCTGAAACCTGGCTTATCTCTCAGAAAGTACTTTCTTGT CACAGTTTCTACTTGTCTTACAGAAAAGCCTTGACACTAATAAAATATATAGAAGACG ATACAAGGAAAAAAGCCCTTAAATCTCTCGGAACCTGAAGATAGACCTTGATTTAAC AGCAGAGGGCGATCTTAACATAATAATGGCTCTGGCTGAGAAAATTAACCAGGCCTACA CTCTNTTATCTTTGGAAGACCTTTCTACACTAGTGTGCAAGAACGAGATGTTCTAATGAC TNTNTAAATGTGTAACCTAATAAGCCTATTCCATCACAATCATGATCGCTGGTAAAGTAG CTCAGTGGTGTGGNGAAAACGTTCCCTGGATCATACTCCAGAATNCTGCTCTCAGCATT TGCAGTAAAGTAAGTACACTACAGNTCTCACAGAGCCTGTGAAGGGAATGTCAGTGCATCA TAACTTNGGNGNCTCTTCTAGATAATGCTTTT</p>
3' Read Nucleotide Sequence:	<p>>OriGene 3' read for AK001971 unedited GTACAACATATGNNACCGCGCCGCATAGNGATCGATTTTTTTTTTTTTTTTTTTTTTTTT TTTTTTTTTTTTTTTTTTTTTCAAAAATTTCAAATTTTTTTTTATCCAAAATTTCTCCAT TTAGGAAAAAAGATTTTAAACAATGTTTACCCATGCCTTAAATAACTTATTTCACTGGC CAACTTACATTCTGTATAACAGTCCAATAAACCACCCAAAAAATAACCGGTTAGCCCT TAAATAAAAATCTCCCATGTAAAAAACACAGTTTGGGACACTACAGGGGAGAATTTATAT ATTTTTAATAGGACTGAGCTACAGTACAACAGTCAATTTAGTTTCAGGGGTTGTCTAAAACA TCAAGCTGTCCACATTTTTTGGATTGATGAGGGGAAAGCTATTATGACCTTTCACATTCA AACATGTCATTTTGTGGGAAAATTTGGGGGGGGGGGCAAAAGGGCTCTATTACCTTT ATCCCTTTCTTATAAATATTTTTCCCTTTTATTTACTTCCAAAATTTTAAATAAATA TTTTTTGGGTTTGGGAAACTACAATGTCAACATTGGGTTAAAATTTAATATCAAGTTA TTTTATAACCCAGCAAAAATGGTCCAAACCCTTTAAAAAACAATAAATAACTTACCTCTGC CAAAGTACCACCTAGGAAAACAGCACTTCAAAAACATAGGCAGAAATGCAAGAAGGAAGTCT TATTGCAGGCAAAACAGCAACAACCTTCAAAAACATAGGCAGAAATGCAAGAAGGAAGTCT CCAGGAACTATTTTCTGTTTCTGAAAAAAGATCTTATTAGTTAGTATATTCTCTAAGCC ATTTTATAATCTCAAAGTTGCAATGATTGCCAAAGCGGTACCTGTTAAGACTTTCNNGA GAAAAACGGATGAAAATGCCTGCCCCGG</p>
Restriction Sites:	NotI-NotI
ACCN:	AK001971
Insert Size:	2500 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
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: [AK001971.1](#), [BAA92009.1](#)

RefSeq Size: 2185 bp

RefSeq ORF: 495 bp

Locus ID: 203228

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]