

Product datasheet for **SC314671**

QRICH1 (AK074313) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	QRICH1 (AK074313) Human Untagged Clone
Tag:	Tag Free
Symbol:	QRICH1
Vector:	<u>pCMV6 series</u>



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Fully Sequenced ORF: >NCBI ORF sequence for AK074313, the custom clone sequence may differ by one or more nucleotides

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ATGAATAATTCCCTAGAGAACACCATCTCCTTTGAAGAGTACATCCGAGTAAAGGCACGG
TCTGTCCCAGCAACACAGGATGAAGGAATTTCTGGACTCACTGGCCTCTAAGGGGCCAGAA
GCCCTTCCAGGAGTTCCAGCAGACAGCCACCACTACCATGGTGTACCAACAGGGTGGGAAC
TGCATATACACAGACAGCACTGAAGTGGCTGGTCTTTGCTTGAAGTTGCCTGTCCAGTC
ACCACCACTGTTTCAGCCCAAACCCAGCAAGAACAGCAGATCCAGGTTCCAGCAGCCGACG
CAGGTTCCAGGTCCAGGTGCAGGTACAGCAGTCTCCGCAACAGGTCTCGGCTCAGCTCTCC
CCACAACCTCACCGTTCCACAGCCTACTGAGCAACCCATCCAGGTCCAGGTGCAGATCCAA
GGCCAGGCACACAGTCAGCAGCCCTCCATTAGACCCCGTCTCTGCAGAGTCCCAGT
CCCTCGCAGTGCAGCAGCTCAGATCCAGGTGCAGCAGTGCAGCAGCCAGCAGATC
CAGGCTGCAGAAATCCCGGAGGAGCACATCCCACATCAGCAAATCCAGGCTCAGTGGTG
GCTGGCCAGTCTTTGCTGGTGGTGCAGCAGATCCAAATCCAGACCGTGGGTGCCCTTTCC
CCACCACCATCCAGCAGGGCTCACCCCGGAAGGGAGCGGGGTTGGCACGGCCAGT
GTCCTCAACCACTGAAGAAGCGCAAAGTGGAGATGCCCATCACTGTGTCTACGCCATC
TCAGGGCAGCCGGTGGCCACCGTCTGGCCATTCCACAGGGCCAGCAGCAGAGTTATGTG
TCTTTGAGGCCAGACTTACTGACAGTAGACAGTGGCCACCTGTACAGTGGCACTGGGACC
ATTACTAGCCCTACAGGAGAAACCTGGACCATCCCTGTTTATTCTGCCAGCCCCGGGG
GACCCTCAGCAGCAGAGCATTACCCACATTGCCATTTCCAGGAAGCCTACAACGCAGTT
CACGTCAGTGGCTCACCCACAGCCCTGGCAGCTGTTAAGCTGGAGGATGACAAGGAGAAG
ATGGTGGGCACCATCTGTAGTGAAAACTCCCATGAAGAGGTAGTGCAGACCCCTTGCA
AACTCTCTTTCCAGCAGTTTCATGAATGGCAACATCCACATCCAGTGGCTGTGCAG
GCTGTGGCAGGCACGTACCAGAATACGGCTCAAAGTGTCCATATATGGGACCCCCAACAG
CAGCCCGCAGCAGCAAACCTCCCGAAGAACAGACACCACCACACAGCAGCAGCAGCAA
CTCCAAGTTACTTGTTCAGCTCAAAGTGTCCAGTTGCTGAAGTTGAACACAGTCACAG
CCACAGCCTTCCCGAAGTCTGCTTCCAAATCTTTGAAGCCAGAAGAAGGGCTTGAA
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TTGGCACCCATTGGGAGGCGCAACTGCTGCGATTCCAGGAAGATCTCATCTCTCTGCT
GTGGCAGAGTTGAATTATGGGCTCTGTCTAATGACACGGGAAGCTCGAAATGGAGAAGGT
GAACCCTATGACCAGATGTGCTCTACTATATTTTCTGTGTATTCAAAGTATCTTTTT
GAAAATGGAAGGGTAGATGACATTTTCTCCGATCTTTATTATGTTCCGGTTCACGGAGTGG
CTACATGAAGTTCTGAAGGATGTTCCAGCCCGGTCACCTCACTGGCTATGTCTTGCC
AGCCACGTGACTGAGGAGATGCTATGGGAGTGCAAGCAGCTTGGGGCTCACTCCCCCTCC
ACCTTGCTGACCACCTCATGTTCTTTAATACCAAGTACTTCTATTGAAGACAGTGGAC
CAGCAGATGAAGCTGGCCTTCTCCAAGGCTTTCGACAGACAAAGAAGAACCCCTCTAAT
CCCAAGGATAAAAGCAGCAGATCCCGTACTTGAAGGCCCTTGAATACACCAGACTGGC
CAGAAAAGTTACAGATGACATGTATGCAGAACAGACGAAAAATCCAGAGAATCCATTGAGA
TGTCCCATCAAGCTCTATGATTTCTACCTCTTCAAATGCCCCAGAGTGTGAAAGGCCGG
AATGACACCTTTTACCTGACACCTGAGCCAGTGGTGGCCCCAACAGCCCAATCTGGTAC
TCAGTCCAGCCTATCAGCAGAGAGCAGATGGGACAAATGCTGACGCGGATCCTGGTGATA
AGAGAAATTCAGGAGGCCATCGCAGTGGCCAATGCAAGCACTATGCAC

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Restriction Sites: Please inquire

ACCN: AK074313

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).

OTI Annotation:	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.
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:	<ol style="list-style-type: none">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:	AK074313.1 , BAB85047.1
RefSeq Size:	3101 bp
RefSeq ORF:	2331 bp
Locus ID:	54870
Cytogenetics:	3p21.31
Protein Families:	Druggable Genome
Gene Summary:	Transcriptional regulator that acts as a mediator of the integrated stress response (ISR) through transcriptional control of protein homeostasis under conditions of ER stress (PubMed:33384352). Controls the outcome of the unfolded protein response (UPR) which is an ER-stress response pathway (PubMed:33384352). ER stress induces QRICH1 translation by a ribosome translation re-initiation mechanism in response to EIF2S1/eIF-2-alpha phosphorylation, and stress-induced QRICH1 regulates a transcriptional program associated with protein translation, protein secretion-mediated proteotoxicity and cell death during the terminal UPR (PubMed:33384352). May cooperate with ATF4 transcription factor signaling to regulate ER homeostasis which is critical for cell viability (PubMed:33384352). Upregulates CASP3/caspase-3 activity in epithelial cells under ER stress. Central regulator of proteotoxicity associated with ER stress-mediated inflammatory diseases in the intestines and liver (PubMed:33384352). Involved in chondrocyte hypertrophy, a process required for normal longitudinal bone growth (PubMed:30281152).[UniProtKB/Swiss-Prot Function]