

Product datasheet for **SC107890**

QRICH1 (NM_198880) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	QRICH1 (NM_198880) Human Untagged Clone
Tag:	Tag Free
Symbol:	QRICH1
Synonyms:	AB-DIP; VERBRAS
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

Fully Sequenced ORF: >NCBI ORF sequence for NM_198880, the custom clone sequence may differ by one or more nucleotides

```
ATGAATAATTCCTAGAGAACCACCTCTCCTTTGAAGAGTACATCCGAGTAAAGGCACGGTCTGTCCCGC
AACACAGGATGAAGGAATTTCTGGACTCACTGGCCTCTAAGGGGCCAGAAGCCCTTCAGGAGTTCAGCA
GACAGCCACCACTACCATGGTGTACCAACAGGGTGGGAAGTGCATATACACAGACAGCACTGAAGTGGT
GGGTCTTTGCTTGAACCTGCCTGTCCAGTCACCACCAGTGTTCAGCCACAACCCAGCAAGAACAGCAGA
TCCAGGTTTCAGCAGCCGACGAGGTTCCAGTCCAGGTGCAGGTACAGCAGTCTCCGCAACAGGTCTCGGC
TCAGCTCTCCCCACAACCTCACCGTTCACCAGCCTACTGAGCAACCCATCCAGGTCCAGGTGCAGATCCAA
GGCCAGGCACCACAGTCAGCAGCCCCCTCATTACAGCCCGTCTCTGCAGAGTCCAGTCCCTCGCAGC
TGCAAGCAGCTCAGATCCAGGTGCAGCAGTGCAGCAGCCAGCAGATCCAGGTGCAGAAATCCCGGA
GGAGCACATCCCACATCAGCAAATCCAGGCTCAGCTGGTGGTGGCCAGTCTCTTGTGGTGGTGCAGCAG
ATCCAAATCCAGACCGTGGGTGCCCTTTCCACCACCATCCAGCAGGGCTCACCCGGGAAGGGGAGC
GGCGGGTTGGCAGGCCAGTGTCTCCAACCAGTGAAGAAGCGCAAAGTGGACATGCCCATCACTGTGTC
CTACGCCATCTCAGGGCAGCCGGTGGCCACCGTGTGGCCATTCCACAGGGCCAGCAGCAGATATGTG
TCTTTGAGGCCAGACTTACTGACAGTAGACAGTGGCCACCTGTACAGTGGCACTGGGACCATTACTAGCC
CTACAGGAGAAACCTGGACCATCCCTGTTTATTCTGCCAGCCCCGGGGGACCCTCAGCAGCAGAGCAT
TACCCACATTGCCATTCCCAGGAAGCCTACAACGCAGTTCACGTGAGTGGCTCACCCACAGCCCTGGCA
GCTGTTAAGCTGGAGGATGACAAGGAGAAGATGGTGGCCACCACATCTGTAGTAAAACTCCCATGAAG
AGGTAGTCAGACCCTTGCAAATCTCTTTCCAGCACAGTTCATGAATGGCAACATCCACATTCAGT
GGCTGTGCAGGCTGTGGCAGGCAGTACCAGAATACGGCTCAAATGTCCATATATGGGACCCCAACAG
CAGCCGCAGCAGCAAATCCCAGGAACAGACACCACCACAGCAGCAGCAGCAGCAACTCCAAGTTA
CTTGTTACAGTCAAATGTCCAGTTGCTGAAGTTGAACCACAGTCACAGCCACAGCCTTCCCAGAACT
TCTGCTTCCAAATTTCTTTGAAGCCAGAAGAAGGGCTTGAAGTATGGAAAACTGGGCCAGACCAAGAAT
GCTGAACTAGAGAAGGATGCTCAGAACAGATTGGCACCCATTGGGAGGCGCAACTGCTGCGATTCCAGG
AAGATCTCATCTCCTCTGCTGTGGCAGAGTTGAATTATGGGCTCTGTCTAATGACACGGGAAGCTCGAAA
TGGAGAAGGTGAACCCTATGACCAGATGTGCTCTACTATATTTTCTGTGTATTCAAAGTATCTTTTT
GAAAATGGAAGGGTAGATGACATTTTCTCCGATCTTTATTATGTTGCGTTCACGGAGTGGCTACATGAAG
TTCTGAAGGATGTTCCAGCCCGGGTCACTCCACTTGGCTATGTCTTGGCCAGCCAGTGACTGAGGAGAT
GCTATGGGAGTGAAGCAGCTTGGGGCTCACTCCCCTCCACCTTGTGACCACCCTCATGTTCTTTAAT
ACCAAGTACTTCTATTGAAGACAGTGGACCAGCACATGAAGCTGGCCTTCTCCAAGGTCTTGCACAGA
CAAAGAAGAACCCTCTAATCCCAGGATAAAAAGCACGAGTATCCGGTACTTGAAGGCCCTTGAATACA
CCAGACTGGCCAGAAAGTTACAGATGACATGTATGCAGAACAGACGGAAAATCCAGAGAATCCATTGAGA
TGTCCCATCAAGCTCTATGATTTCTACCTTTCAAATGCCCCAGAGTGTGAAAGGCCGGAATGACACCT
TTTACCTGACACCTGAGCCAGTGGTGGCCCCAACAGCCCAATCTGGTACTCAGTCCAGCCTATCAGCAG
AGAGCAGATGGGACAAATGCTGACGCGGATCCTGGTGATAAGAGAAAATTCAGGAGGCCATCGCAGTGGCC
AATGCAAGCACTATGCACTGA
```

5' Read Nucleotide Sequence:	>OriGene 5' read for NM_198880 unedited GGGTGAGGAGAAAACCTGTCTGGTCTTGGNAGCGACGACGGCAGAACCAGGGTCCCTGGC GGTGCGGCGGGGCGGGTGCAGCGGAGGCGGGCGGGCGGGCAGTGACGTCGCCG GGAACCTAAGGACTCTGCAATATGAATAATCCCTAGAGAACACCATCTCTTTGAAGA GTACATCCGAGTAAAGGCACGGTCTGTCCCACAACACAGGATGAAGGAATTTCTGGACTC ACTGGCCTCTAAGGGGCCAGAAGCCCTTCAGGAGTTCAGCAGACAGCCACCCTACC GGTGTACCAACAGGGTGGGAATGCATATACACAGACAGCACTGAAGTGGCTGGGTCTTT GCTTGAACCTTGCCTGTCCAGTCACCACAGTGTTCAGCCACAAACCCAGCAAGAACAGCA GATCCAGGTTCCAGCAGCCGAGCAGGTTCCAGTCCAGGTCAGGTCAGGTCAGCAGTCTCCGCA ACAGGTTCTCGGCTCAGCTCTCCCACTCACCGTTCACCAGCCTACTGAGCAACCCAT CCAGGTTCCAGGTCAGATCCAAGGCCAGGCACACAGTCAGCAGCCCCCTCCATTCAGAC CCCGTCTCTGCAGAGTCCAGTCCCTCGCAGCTGCAAGCAGCTCAGATCCAGGTCAGCA CGTGCAAGCAGCCAGCAGATCCAGGCTGCAGAAATCCCGGAGGAGCACATNCCACATCA GCAATNCAGGCTCANCTGGTGGCTGGCCAGTCTCTTGCTGGNGGTCAGCAGATCCAAT CCAGACCGNGGGTGCCCTTTCCACCACCTTCCAACAGGGCTTACCCCGAAAGGGAAC GG
Restriction Sites:	NotI-NotI
ACCN:	NM_198880
Insert Size:	5000 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:	<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:	<u>NM_198880.1</u> , <u>NP_942581.1</u>
RefSeq Size:	3271 bp
RefSeq ORF:	2331 bp
Locus ID:	54870
UniProt ID:	<u>Q2TAL8</u>
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]

Transcript Variant: This variant (2) differs in the 5' UTR compared to variant 1. Variants 1-8 encode the same protein.