

Product datasheet for **SC318260**

QRICH1 (NM_017730) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	QRICH1 (NM_017730) Human Untagged Clone
Tag:	Tag Free
Symbol:	QRICH1
Synonyms:	AB-DIP; VERBRAS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



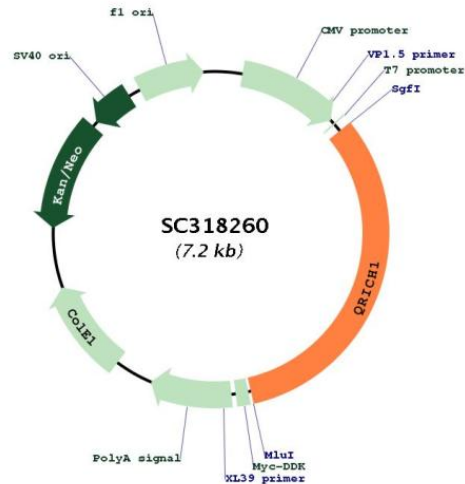
[View online »](#)

Fully Sequenced ORF: >SC318260 representing NM_017730.
 Blue=Insert sequence Red=Cloning site Green=Tag(s)

```

GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGAATAATTCCCTAGAGAACACCATCTCCTTTGAAGAGTACATCCGAGTAAAGGCACGGTCTGTCCCG
CAACACAGGATGAAGGAATTTCTGGACTCACTGGCCTCTAAGGGGCCAGAAGCCCTTCAGGAGTCCAG
CAGACAGCCACCACTACCATGGTGTACCAACAGGGTGGGAAGTGCATATACACAGACAGCACTGAAGTG
GCTGGGTCTTTGCTTGAACCTGCCTGTCCAGTACCACCAGTGTTCAGCCACAAACCCAGCAAGAACAG
CAGATCCAGGTTCCAGCAGCCGACGAGGTTCCAGTCCAGGTGCAGGTACAGCAGTCTCCGCAACAGGTC
TCGGCTCAGTCTCCCCACAACCTACCCTTACCAGCCTACTGAGCAACCCATCCAGGTTCCAGGTGCAG
ATCCAAGGCCAGGCACCACAGTCAAGCAGCCCTCCATTAGACCCCGTCTCTGCAGAGTCCAGTCCC
TCGAGCTGCAAGCAGCTCAGATCCAGGTGCAGCAGTGAAGCAGCCAGCAGATCCAGGTTGCAGAA
ATCCCGGAGGAGCACATCCACATCAGCAAATCCAGGCTCAGTGGTGGTGGCCAGTCTCTTGCTGGT
GGTCAGCAGATCCAAATCCAGACCGTGGGTGCCCTTTCCCAACCACATCCAGCAGGGCTCACCCCGG
GAAGGGGAGCGCGGGTGGCACGGCCAGTGTCTTCCAACAGTGAAGAAGCGCAAAGTGGACATGCC
ATCACTGTGTCTACGCCATCTCAGGGCAGCCGGTGGCCACCGTGTGGCCATTCCACAGGGCCAGCAG
CAGAGTTATGTGCTTTGAGGCCAGACTTACTGACAGTAGACAGTGGCCACCTGTACAGTGGCCACTGGG
ACCATTACTAGCCCTACAGGAGAAACCTGGACCATCCCTGTTTATTCTGCCAGCCCGGGGGACCCCT
CAGCAGCAGAGCATTACCACATTGCCATTTCCCAAGGAGCTACAACGCAGTTCACGTCACTGGCTCA
CCCACAGCCCTGGCAGCTGTTAAGCTGGAGGATGACAAGGAGAAGATGGTGGCACCACATCTGTAGTG
AAAAATCCCATGAAGAGGTAGTGCAGACCCCTTCAAACCTCTCTTTCCAGCACAGTTCATGAATGGC
AACATCCACATTCAGTGGTGTGCGAGGCTGTGGCAGGCAGTACCAGAATACGGTCAAACCTGTCCAT
ATATGGGACCCCCAACAGCAGCCGACGAGCAAACCTCCCAAGAACAGACACCACCACAGCAGCAG
CAGCAGCAAACCAAGTTACTTGTTCAGCTCAAACCTGTCCAGGTTGCTGAAGTTGAACCACAGTCAAG
CCACAGCCTTCCCAAGACTTCTGCTTCAAATCTTTGAAGCCAGAAGAAGGGCTTGAAGTATGGAAA
AACTGGGCCAGACCAAGAATGCTGAACTAGAGAAGGATGCTCAGAACAGATTGGCACCCATTGGGAGG
CGCCAAGTGTGCGATTCCAGGAAGATCTCATCTCCTCTGCTGTGGCAGAGTTGAATTATGGGCTCTGT
CTAATGACACGGGAAGCTCGAAATGGAGAAGGTGAACCCATGACCCAGATGTGCTCTACTATATTTTC
CTGTGTATTCAAAGTATCTTTTGAAGTGAAGGGTAGATGACATTTCTCCGATCTTTATTATGTT
CGGTTACGGAGTGGCTACATGAAGTTCGAAGGATGTTAGCCCGGGTCACTCCACTTGGCTATGTC
TTGCCACGCCACGTGACTGAGGAGATGCTATGGGAGTGAAGCAGCTTGGGGTCACTCCCCCTCCACC
TTGCTGACCACCCATGTTCTTTAATACCAAGTACTTCTATTGAAGACAGTGGACCAGCACATGAAG
CTGGCCTTCTCCAAGGCTTTCGACAGACAAAGAAGAACCCTCTAATCCCAAGGATAAAAGCACGAGT
ATCCGGTACTTGAAGGCCCTTGAATACACCAGACTGGCCAGAAAGTTACAGATGACATGTATGCAGAA
CAGACGGAAAAATCCAGAGAATCCATTGAGATGTCCCATCAAGCTCTATGATTTCTACCTCTTCAAATGC
CCCCAGAGTGTGAAAGGCCGGAATGACACCTTTACCTGACACCTGAGCCAGTGGTGGCCCCAACAGC
CCAATCTGGTACTCAGTCCAGCCTATCAGCAGAGAGCAGATGGGACAAATGCTGACGCGGATCCTGGTG
ATAAGAGAAAATTCAGGAGGCCATCGCAGTGGCCAATGCAAGCACTATGCACTGA
ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTAAACGGCCGGC
  
```

Restriction Sites: SgfI-MluI

Plasmid Map:


ACCN: NM_017730

Insert Size: 2331 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).

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:

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_017730.3](#)

RefSeq Size: 3633 bp

RefSeq ORF: 2331 bp

Locus ID: 54870

UniProt ID: [Q2TAL8](#)

Cytogenetics: 3p21.31

Protein Families:	Druggable Genome
MW:	86.4 kDa
Gene Summary:	<p>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]</p> <p>Transcript Variant: This variant (1) represents the longest transcript. Variants 1-8 encode the same protein.</p>