

Product datasheet for **MR216623**

Qrich1 (NM_175143) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Qrich1 (NM_175143) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Qrich1
Synonyms:	2610028H07Rik; b2b2404Clo
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide
Sequence:**

>MR216623 representing NM_175143
 Red=Cloning site Blue=ORF Green=Tags(s)

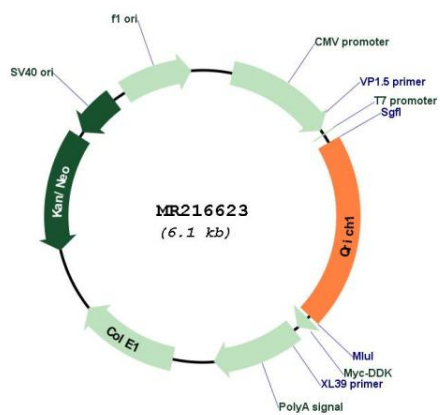
TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAATAATTCTCTAGAGAACCACCTCTCATTTGAAGAGTACATCCGAGTAAAGGCGAGGTCTGTCCCGC
 AACACAGGATGAAGGAATTTCTGGACTCACTGGCTTCTAAGGGACCAGAAGCTCTTCAGGAGTTCCAGCA
 GACTGCCACCACCACCATGGTGTACCAGCAGGGTGGAACTGCATTTATACAGACAGCACTGAAGTGGCT
 GGGTCTTTGCTTGAACCTGCTTGTCCAGTACAACCAGTGTCAACCACAACTCAGCAAGAGCAGCAGA
 TCCAGGTTTCAGCAGCCACAGCAGGTTTCAGGTACAGGTGCAGGTGCAGCAGTCTCCACAACAGGTCTCAGC
 TCAGCAACTTTCCACAGTTCACCGTTCACCAGCCTGCTGAGCAACCCATCCAGGTCCAGGTGCAGATC
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 AGCTGCAAGCAGCTCAGATCCAGGTGCAGCACGTCCAGGGGCCAACAGATCCAGGCTGCAGAAATCCC
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 AGGAAGATCTGATCTCTCTGCTGTGGCTGAATTGAATTATGGCCTTTGTTAATGACACGAGAAGCTCG
 GAATGGAGAAGGTGAACCCTATGACCCAGATGTACTCTACTACATTTTCTGTGTATACAGAAGTATCTT
 TTTGAAAATGGAAGAGTAGATGACATATTTTCTGATCTTTACTATGTTTCGTTTCCACGAATGGCTACATG
 AAGTTCTGAAGGATGTACAGCCTCGGGTCACTCCACTGGCTATGTGTTGCCAGTACAGTGAAGA
 GATGCTGTGGGAATGTAAGCAGCTTGGGGCACATTTCCCTTCCACACTGTGACCACCCTCATGTTCTTT
 AACACCAAGTACTTCTGTTGAAGACTGTAGATCAGCACATGAAGCTGGCTTTCTCTAAGGTCTCCGAC
 AGACAAAGAAGAGCCCTCGAATCTTAAGGATAAAAGCAGCAGCATCCGCTACCTGAAGGCCCTCGGAAT
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 AGGTGTCCCATCAAGCTTACGATTTCTACCTTTAAATGCCCTCAGAGTGTGAAAGGCCGAAATGACA
 CCTTTTACCTGACACCTGAGCCAGTTGTAGCTCCCAACAGCCCAATCTGGTACTCAGTCCAGCCTATCAG
 CAGAGAACAGATGGGACAGATGCTGACCCGGATCCTGGTTATACGAGAAATCCAAGAAGCCATTGCCGTG
 GCCAATGCAACCACCATGCAC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

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 Size:	3238 bp
RefSeq ORF:	2334 bp
Locus ID:	69232
UniProt ID:	Q3UA37
Cytogenetics:	9 F2
MW:	86.5 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), an ER-stress response pathway that either promotes recovery of ER homeostasis and cell survival, or triggers the terminal UPR which elicits programmed cell death when ER stress is prolonged and unresolved (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 (By similarity). May cooperate with ATF4 transcription factor signaling to regulate ER homeostasis which is critical for cell viability (By similarity). 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>

Product images:



Circular map for MR216623