

## **Product datasheet for RC213114L4**

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OriGene Technologies, Inc.

### QRICH1 (NM\_017730) Human Tagged Lenti ORF Clone

**Product data:** 

**Product Type:** Expression Plasmids

Product Name: QRICH1 (NM 017730) Human Tagged Lenti ORF Clone

Tag: mGFP

**Symbol:** QRICH1

Synonyms: AB-DIP; VERBRAS

Mammalian Cell Puromycin

Selection:

**Vector:** pLenti-C-mGFP-P2A-Puro (PS100093)

E. coli Selection: Chloramphenicol (34 ug/mL)

ORF Nucleotide The ORF insert of this clone is exactly the same as(RC213114).

Sequence:

**Restriction Sites:** Sgfl-Mlul

**Cloning Scheme:** 





<sup>\*</sup> The last codon before the Stop codon of the ORF

**ACCN:** NM\_017730

ORF Size: 2328 bp





#### QRICH1 (NM\_017730) Human Tagged Lenti ORF Clone - RC213114L4

**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of

reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing

variants is recommended prior to use. More info

**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression

varies depending on the nature of the gene.

**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: <u>NM 017730.2</u>, <u>NP 060200.2</u>

 RefSeq Size:
 3331 bp

 RefSeq ORF:
 2331 bp

 Locus ID:
 54870

 UniProt ID:
 Q2TAL8

 Cytogenetics:
 3p21.31

**Protein Families:** Druggable Genome

MW: 86.4 kDa

**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

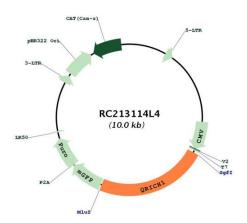
phosphorylation, and stress-induced QRICH1 regulates a transcriptional program associated with protein translation, protein secretion-mediated proteotoxicity and cell death during the terminal UPR (PubMed:33384352). May cooperate with ATF4 transcription factor signaling to regulate ER homeostasis which 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]



# **Product images:**



Circular map for RC213114L4