

## Product datasheet for **TL302172**

### QRICH1 Human shRNA Plasmid Kit (Locus ID 54870)

#### Product data:

Product Type:	shRNA Plasmids
Product Name:	QRICH1 Human shRNA Plasmid Kit (Locus ID 54870)
Locus ID:	54870
Synonyms:	AB-DIP; VERBRAS
Vector:	pGFP-C-shLenti (TR30023)
E. coli Selection:	Chloramphenicol (34 ug/ml)
Mammalian Cell Selection:	Puromycin
Format:	Lentiviral plasmids
Components:	QRICH1 - Human, 4 unique 29mer shRNA constructs in lentiviral GFP vector(Gene ID = 54870). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pGFP-C-shLenti Vector, TR30021, included for free.
RefSeq:	<a href="#">NM_001320580</a> , <a href="#">NM_001320581</a> , <a href="#">NM_001320582</a> , <a href="#">NM_001320583</a> , <a href="#">NM_001320584</a> , <a href="#">NM_001320585</a> , <a href="#">NM_017730</a> , <a href="#">NM_198880</a> , <a href="#">NM_198880.1</a> , <a href="#">NM_017730.1</a> , <a href="#">NM_017730.2</a> , <a href="#">NM_017730.3</a> , <a href="#">BC110855</a> , <a href="#">BC000978</a> , <a href="#">BC098375</a> , <a href="#">BC130340</a> , <a href="#">BC130342</a> , <a href="#">NM_198880.3</a>
UniProt ID:	<a href="#">Q2TAL8</a>
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]



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<b>shRNA Design:</b>	These shRNA constructs were designed against multiple splice variants at this gene locus. To be certain that your variant of interest is targeted, please contact <a href="mailto:techsupport@origene.com">techsupport@origene.com</a> . If you need a special design or shRNA sequence, please utilize our <a href="#">custom shRNA service</a> .
<b>Performance Guaranteed:</b>	<p>OriGene guarantees that the sequences in the shRNA expression cassettes are verified to correspond to the target gene with 100% identity. One of the four constructs at minimum are guaranteed to produce 70% or more gene expression knock-down provided a minimum transfection efficiency of 80% is achieved. Western Blot data is recommended over qPCR to evaluate the silencing effect of the shRNA constructs 72 hrs post transfection. To properly assess knockdown, the gene expression level from the included scramble control vector must be used in comparison with the target-specific shRNA transfected samples.</p> <p>For non-conforming shRNA, requests for replacement product must be made within ninety (90) days from the date of delivery of the shRNA kit. To arrange for a free replacement with newly designed constructs, please contact Technical Services at <a href="mailto:techsupport@origene.com">techsupport@origene.com</a>. Please provide your data indicating the transfection efficiency and measurement of gene expression knockdown compared to the scrambled shRNA control (Western Blot data preferred).</p>