

# Datasheet for ABIN7557160 **QRICH1 Protein (AA 1-777) (His tag)**



# Overview

Quantity:	1 mg
Target:	QRICH1
Protein Characteristics:	AA 1-777
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This QRICH1 protein is labelled with His tag.

## **Product Details**

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Purpose:	Custom-made recombinant Qrich1 Protein expressed in mammalian cells.
Sequence:	MNNSLENTIS FEEYIRVKAR SVPQHRMKEF LDSLASKGPE ALQEFQQTAT TTMVYQQGGN
	CIYTDSTEVA GSLLELACPV TTSVQPQTQQ EQQIQVQQPQ QVQVQVQVQQ SPQQVSAQQL
	SPQFTVHQPA EQPIQVQVQI QGQAPQSAAP SIQTPSLQSP SPSQLQAAQI QVQHVQAAQQ
	IQAAEIPEEH IPHQQIQAQL VAGQSLAGGQ QIQIQTVGAL SPPPSQQGSP REGERRVGTA
	SVLQPVKKRK VDMPITVSYA ISGQPVATVL AIPQGQQQSY VSLRPDLLTV DSAHLYSATG
	TITSPTGETW TIPVYSAQPR GDPQQQSITH IAIPQEAYNA VHVSGSPKAL AAVKLEDDKE
	KMVGTTSVVK NSHEEVVQTL ANSLFPAQFM NGNIHIPVAV QAVAGTYQNT AQTVHIWDPQ
	QQPQQQTAQE QTPPPQQQQQ QLQVTCSAQT VQVAEVEPQS QPQPSPELLL PNSLKPEEGL
	EVWKNWAQTK NAELEKDAQN RLAPIGRRQL LRFQEDLISS AVAELNYGLC LMTREARNGE
	GEPYDPDVLY YIFLCIQKYL FENGRVDDIF SDLYYVRFTE WLHEVLKDVQ PRVTPLGYVL
	PSHVTEEMLW ECKQLGAHSP STLLTTLMFF NTKYFLLKTV DQHMKLAFSK VLRQTKKSPS
	NPKDKSTSIR YLKALGIHQT GQKVTDDMYA EQTENPENPL RCPIKLYDFY LFKCPQSVKG

	RNDTFYLTPE PVVAPNSPIW YSVQPISREQ MGQMLTRILV IREIQEAIAV ANATTMH <b>Sequence</b>
	without tag. The proposed Purification-Tag is based on experiences with the expression
	system, a different complexity of the protein could make another tag necessary. In case you
	have a special request, please contact us.
Specificity:	If you are looking for a specific domain and are interested in a partial protein or a different
	isoform, please contact us regarding an individual offer.
Characteristics:	Key Benefits:
	<ul> <li>Made to order protein - from design to production - by highly experienced protein experts.</li> <li>Protein expressed in mammalian cells and purified in one-step affinity chromatography</li> <li>The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins.</li> <li>State-of-the-art algorithm used for plasmid design (Gene synthesis).</li> </ul>
	This protein is a made-to-order protein and will be made for the first time for your order. Our
	experts in the lab try to ensure that you receive soluble protein.
	If you are not interested in a full length protein, please contact us for individual protein
	fragments.
	The big advantage of ordering our made-to-order proteins in comparison to ordering custom
	made proteins from other companies is that there is no financial obligation in case the protein
	cannot be expressed or purified.
Purity:	> 90 % as determined by Bis-Tris PAGE, anti-tag ELISA, Western Blot and analytical SEC (HPLC)
Grade:	custom-made
Target Details	
Target:	QRICH1
Alternative Name:	Qrich1 (QRICH1 Products)
Background:	Transcriptional regulator QRICH1 (Glutamine-rich protein 1),FUNCTION: 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
	(50)
	promotes recovery of ER homeostasis and cell survival, or triggers the terminal UPR which

(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). Up-regulates 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). [ECO:0000250|UniProtKB:Q2TAL8, ECO:0000269|PubMed:30281152, ECO:0000269|PubMed:33384352}.

Molecular Weight:

86.6 kDa

UniProt:

**Q3UA37** 

## **Application Details**

Application Notes: We expect the protein to work for functional studies. As the protein has not been tested for

functional studies yet we cannot offer a guarantee though.

Restrictions: For Research Use only

## Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months