

Product datasheet for **RG209514**

UBQLN4 (NM_020131) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Tag:	TurboGFP
Symbol:	UBQLN4
Synonyms:	A1U; A1Up; C1orf6; CIP75; UBIN
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



ORF Nucleotide Sequence: >RG209514 representing NM_020131
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCGCGATCGCC

ATGGCGGAGCCGAGCGGGCCGAGACGAGGCCCCCCATTGGGTCAACGACCCCAAGGACAAGG
 AGGAAATTGTGATCTGCGATCGAGCCTCGGTCAAGGAGTTCAAAGAGGAAATCTCCCGAGGTTTAAAGGC
 TCAGCAGGATCAGCTGGTCTGATCTTCGAGGCAAGATCCTCAAGGATGGGGACACTGAACACGAC
 GGAATCAAGGACGGGCTCACTGTCCATCTGGTCATCAAGACCCCTCAGAAGGCTCAAGATCCAGCTGTG
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 CCCTGCCCCAGCCCTCCACCTCTGGCAGTGCCTTTCAGATGCTGGCAGTGGAAAGCCGGAGGACAGTGGT
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 GCTCAGATGATGGTGAATGTGCCGCTCTTCGCGGGGAACCCCAACTGCAGGAGCAGCTCCGCTGCAGC
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 GGCATTGCTGCAGATCCAGCAGGACTACAGACCTTGAGACCGAGGCCCTGGGCTGGTACCCAGCCTT
 GGCTCCTTTGGGATATCCCGACCCGAGCACCTCAGCAGGCAACGAGGGTCTACGCCGAGGCCCC
 CCACTTCTCAGCAGCCAGCCAGCCACATCTTCTCCAACAGGGGCTTCCAGCGCCAGCAGCAACTCAT
 GCAGCAGATGATCCAGCTTTTGGCTGGAAGTGGAACTCACAGGTGCAGACGCCAGAAGTGAGATTTAG
 CAGCAGCTGGAGCAGCTCAATCCATGGGCTTCATCAATCGTGAGGCTAACCTGCAGGCCCTGATTGCCA
 CAGGAGGGGACATCAACGAGCTATCGAGAGACTGCTGGGCTCCAGCTCTCC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

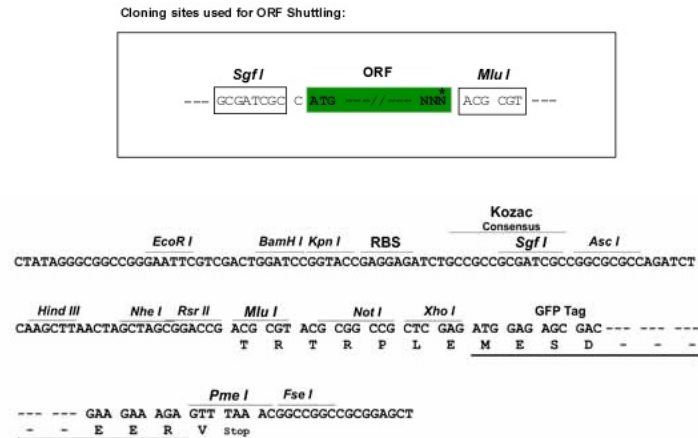
Protein Sequence: >RG209514 representing NM_020131
 Red=Cloning site Green=Tags(s)

MAEPSGAETRPPIRVTVKTPKDKEEIVICDRASVKEFKEEISRRFKAQQDQLVLIFAGKILKDGLTLNQH
 GIKDGLTVHLVIKTPQKAQDPAAATASSPSTPDAPASAPSTTPASPATPAQPSTSGSASSDAGSGSRRSSG
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 GSGSTQVHPTVSNPFGINAASLGSFMFNSPEMQALLQQISENPQLMQNVISAPYMRSMQTLAQNPDA
 AQMMVNVPFLFAGNPQLQEQLRLQLPVFLQQMQNPESLSILTNPAMQALLQIQQLQLQTEAPGLVPSL
 GSFGISRTAPASAGSNAGSTPEAPTSSPATPATSSPTGASSAQQLMQQMIQLLAGSGNSQVQTPPEVRFQ
 QQLEQLNSMGFINREANLQALIAATGGDINAIAIERLLGSQLS

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_020131

ORF Size: 1803 bp

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:

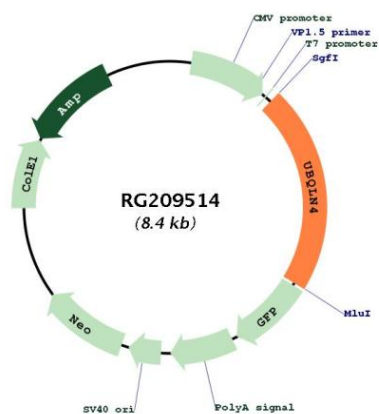
1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_020131.5](#)

RefSeq Size:	3545 bp
RefSeq ORF:	1806 bp
Locus ID:	56893
UniProt ID:	<u>Q9NRR5</u>
Cytogenetics:	1q22
Domains:	UBA, UBQ, STII
Protein Families:	Druggable Genome
Gene Summary:	Regulator of protein degradation that mediates the proteasomal targeting of misfolded, mislocalized or accumulated proteins (PubMed:15280365, PubMed:27113755, PubMed:29666234, PubMed:30612738). Acts by binding polyubiquitin chains of target proteins via its UBA domain and by interacting with subunits of the proteasome via its ubiquitin-like domain (PubMed:15280365, PubMed:27113755, PubMed:30612738). Key regulator of DNA repair that represses homologous recombination repair: in response to DNA damage, recruited to sites of DNA damage following phosphorylation by ATM and acts by binding and removing ubiquitinated MRE11 from damaged chromatin, leading to MRE11 degradation by the proteasome (PubMed:30612738). MRE11 degradation prevents homologous recombination repair, redirecting double-strand break repair toward non-homologous end joining (NHEJ) (PubMed:30612738). Specifically recognizes and binds mislocalized transmembrane-containing proteins and targets them to proteasomal degradation (PubMed:27113755). Collaborates with DES1/POST in the export of ubiquitinated proteins from the nucleus to the cytoplasm (PubMed:29666234). Also plays a role in the regulation of the proteasomal degradation of non-ubiquitinated GJA1 (By similarity). Acts as an adapter protein that recruits UBQLN1 to the autophagy machinery (PubMed:23459205). Mediates the association of UBQLN1 with autophagosomes and the autophagy-related protein LC3 (MAP1LC3A/B/C) and may assist in the maturation of autophagosomes to autolysosomes by mediating autophagosome-lysosome fusion (PubMed:23459205).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RG209514