

## Product datasheet for **RG222822**

### Ancient ubiquitous protein 1 (AUP1) (NM\_181575) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Ancient ubiquitous protein 1 (AUP1) (NM_181575) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	AUP1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG222822 representing NM_181575 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGAGCTTCCTCAGGGCCGGGCGGAGCGGCTCTTTGACTCGCACCGGCTTCCGGGTGACTGCTTCC  
TACTGCTCGTGTCTGTCTACGCGCCAGTCGGGTTCTGCCTCCTCGTCTGCGCTCTTTCTCGGGAT  
CCACGTCTTCTGGTCAGCTGCGCGTCCAGACAGCGTCTTCGCAGATTCGTAGTGCGGACCATGTGT  
GCGGTGCTAGGGCTCGTGGCCCGCAGGAGGACTCCGGACTCCGGGATCACAGTGTGAGGTCCTCATT  
CCAACCATGTGACACCTTCGACCACAACATAGTCAATTTGCTTACCACCTGTAGCACCCCTCTACTCAA  
TAGTCCCCCAGCTTTGTGTGCTGGTCTCGGGGCTTCATGGAGATGAATGGCGGGGGAGTTGGTGGAG  
TCACTCAAGAGATTCTGTGCTTCCACGAGGCTTCCCCCACTCCTCTGTGCTATTCCCTGAGGAAGAGG  
CCACCAATGGCCGGGAGGGGCTCCTGCGCTTCACTTCTGCGCATTTTCTATCCAAGATGTGGTACAACC  
TCTTACCCTGCAAGTTCAGAGACCCCTGGTCTCTGTGACGGTGTGAGATGCCTCCTGGGTCTCAGAACTG  
CTGTGGTCACTTTTCTCCCTTTACGGTGTATCAAGTAAGGTGGCTTCGTCTGTTTCATCGCCAACTAG  
GGGAAGCGAATGAGGAGTTTCACTCCGTGTACAACAGCTGGTGGCAAGGAATTGGCCAGACAGGGAC  
ACGGCTCACTCCAGCTGACAAAGCAGAGACATGAAGCGACAAAGACACCCAGATTGCGCCCCAGTCA  
GCCAGTCTTCTTCCCTCCCTCCCTGGTCTTCTCCTGATGTGCAACTGGCAACTCTGGCTCAGAGAG  
TCAAGGAAGTTTTGCCCATGTGCCATTGGGTGTATCCAGAGAGACCTGGCCAAGACTGGCTGTGTAGA  
CTTGACTATCACTAATCTGCTTGAGGGGGCCGTAGCTTTCATGCCTGAAGACATCAACAAGGAACTCAG  
TCCCTACCACAGCCTCTGCCTCCAAGTTTCCAGCTCTGGCCCGGTGACCCCTCAGCCAACAGCCCTAA  
CATTTGCCAAGTCTTCTGGGCCCGCAGGAGAGCCTGCAGGAGCGCAAGCAAGCACTATATGAATACGC  
AAGAAGGAGATTCACAGAGAGACGAGCCAGGAGGCTGAC

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG222822 representing NM\_181575  
Red=Cloning site Green=Tags(s)

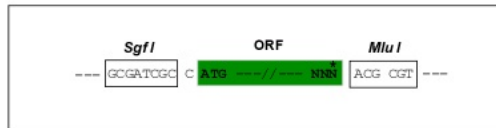
MELPSGPGPERLFDShRLPGDCFLLLVLLL YAPVGFCLLVLRFLGIHVFLVSCALPDSVLRFRFVVRTMC  
 AVLGLVARQEDSGLRDHSVRVLI SNHVTPFDHNI VNLTTTCSTPLLNSPPSFVCWSRGMEMNGRGELVE  
 SLKRFCASTRLPPTPLLLFPEEEATNGREGLLRFSSWPF SIQDVVQPL TLQVQRPLVSVTVSDASWVSEL  
 LWSLFVPFTVYQVRWLRPVHRQLGEANEEFALRVQQL VAKELGQTGTRLTPADKAEHMKRQRHPRLRPQS  
 AQSSFPPSPGSPDVQLATLAQRVKEVLP HVPLGVIQRDLAKTGCVDLTI TNLLEGAVAFMPEDITKGTQ  
 SLPTASASKFPSSGPVTPQPTAL TFAKSSWARQESLQERKQAL YEYARRRFTERRAQEAD

TRTRPLE - GFP Tag - V

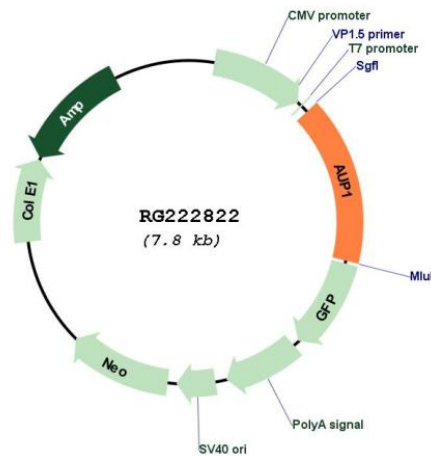
**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



**Plasmid Map:**



**ACCN:** NM\_181575

<b>ORF Size:</b>	1230 bp
<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_181575.5</a>
<b>RefSeq Size:</b>	1561 bp
<b>RefSeq ORF:</b>	1233 bp
<b>Locus ID:</b>	550
<b>UniProt ID:</b>	<a href="#">Q9Y679</a>
<b>Cytogenetics:</b>	2p13.1
<b>Protein Families:</b>	Druggable Genome, Transmembrane
<b>Gene Summary:</b>	The protein encoded this gene is involved in several pathways including quality control of misfolded proteins in the endoplasmic reticulum and lipid droplet accumulation. Lipid droplets are organelles in the cytoplasm that store neutral lipids such as cholesterol esters and triglycerides to prevent the overabundance of free cholesterol and fatty acids in cells, but also to act as storage for other metabolic processes, such as membrane biogenesis. Reduced expression of this gene results in reduced lipid droplet clustering, a function that is dependent on ubiquitination of the protein. This protein contains multiple domains including a hydrophobic N-terminal domain, an acetyltransferase domain, a ubiquitin-binding CUE domain, and a UBE2B2-binding domain (G2BR). Alternative splicing results in multiple transcript variants. [provided by RefSeq, Nov 2014]