OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for SC310429

Ancient ubiquitous protein 1 (AUP1) (NM_181575) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Ancient ubiquitous protein 1 (AUP1) (NM_181575) Human Untagged Clone
Tag:	Tag Free
Symbol:	Ancient ubiquitous protein 1
Mammalian Cell Selection:	None
Vector:	pCMV6-XL5
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene sequence for NM_181575 edited CGGGCGCTCCTGAAGCAGCAGTTATGGAGCTTCCCTCAGGGCCGGGGCCGGAGCGGCTCT TTGACTCGCACCGGCTTCCGGGTGACTGCTTCCTACTGCTCGTGCTGCTGCTCTACGCGC CAGTCGGGTTCTGCCTCCTCGTCCTGCGCCTGTTTCTCGGGATCCACGTCTTCCTGGTCA GCTGCGCGCTGCCAGACAGCGTCCTTCGCAGATTCGTAGTGCGGACCATGTGTGCGGTGC TAGGGCTCGTGGCCCGGCAGGAGGACTCCGGACTCCGGGATCACAGTGTCAGGGTCCTCA TTTCCAACCATGTGACACCTTTCGACCACAACATAGTCAATTTGCTTACCACCTGTAGCA CCCCTCTACTCAATAGTCCCCCCAGCTTTGTGTGCTGGTCTCGGGGCTTCATGGAGATGA ATGGGCGGGGGGAGTTGGTGGAGTCACTCAAGAGATTCTGTGCTTCCACGAGGCTTCCCC CCACTCCTCTGCTGCTATTCCCTGAGGAAGAGGCCACCAATGGCCGGGAGGGGCTCCTGC GCTTCAGTTCCTGGCCATTTTCTATCCAAGATGTGGTACAACCTCTTACCCTGCAAGTTC AGAGACCCCTGGTCTCTGTGACGGTGTCAGATGCCTCCTGGGTCTCAGAACTGCTGTGGT CACTTTTCGTCCCTTTCACGGTGTATCAAGTAAGGTGGCTTCGTCCTGTTCATCGCCAAC TAGGGGAAGCGAATGAGGAGTTTGCACTCCGTGTACAACAGCTGGTGGCCAAGGAATTGG GCCAGACAGGGACACGGCTCACTCCAGCTGACAAAGCAGAGCACATGAAGCGACAAAGAC ACCCCAGATTGCGCCCCCAGTCAGCCCAGTCTTCTTTCCCTCCCTCCCCTGGTCCTTCTC CTGATGTGCAACTGGCAACTCTGGCTCAGAGAGTCAAGGAAGTTTTGCCCCATGTGCCAT TGGGTGTCATCCAGAGAGACCTGGCCAAGACTGGCTGTGTAGACTTGACTATCACTAATC TGCTTGAGGGGGCCGTAGCTTTCATGCCTGAAGACATCACCAAGGGAACTCAGTCCCTAC CCACAGCCTCTGCCTCCAAGTTTCCCAGCTCTGGCCCGGTGACCCCTCAGCCAACAGCCC TAACATTTGCCAAGTCTTCCTGGGCCCGGCAGGAGAGCCTGCAGGAGCGCAAGCAAGCAC TATATGAATACGCAAGAAGGAGATTCACAGAGAGACGAGCCCAGGAGGCTGACTGAGCTC AAAGGAACAGGATGGCACCCAGAGCCGCAGGACGGAGACTGGGGGCAGCCCTCACCCAAC TCACAACAGGCTGGATGGGTGGGTGGTAAAAAGGGAAGGATGAGGCTCCCCCAATGTCAC ATTAAATTCAGGTTTTCATTCAAAAAAAAAAAAAAAAAAA

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5' Read Nucleotide Sequence:

>OriGene 5' read for NM_181575 unedited
GTAATACGACTCACTATAGGGCGGCCGCGAATTCGGCACGAGGCGGGCGCTCCTGAAGCA
GCAGTTATGGAGCTTCCCTCAGGGCCGGGGCCGGAGCGGCTCTTTGACTCGCACCGGCTT
CCGGGTGACTGCTTCCTACTGCTCGTGCTGCTGCTCTACGCGCCAGTCGGGTTCTGCCTC
CTCGTCCTGCGCCTGTTTCTCGGGATCCACGTCTTCCTGGTCAGCTGCGCGCTGCCAGAC
AGCGTCCTTCGCAGATTCGTAGTGCGGACCATGTGTGCGGTGCTAGGGCTCGTGGCCCGG
CAGGAGGACTCCGGACTCCGGGATCACAGTGTCAGGGTCCTCATTTCCAACCATGTGACA
CCTTTCGACCACAACATAGTCAATTTGCTTACCACCTGTAGCACCCCTCTACTCAATAGT
CCCCCCAGCTTTGTGTGCTGGTCTCGGGGCTTCATGGAGATGAATGGGCGGGGGGAGTTG
GTGGAGTCACTCAAGAGATTCTGTGCTTCCACGAGGCTTCCCCCCACTCCTCTGCTGCTA
TTCCCTGAGGAAGAGGCCACCAATGGCCGGGAGGGGCTCCTGCGCTTCAGTTCCTGGCCA
TTTTCTATCCAAGATGTGGTACAACCTCTTACCCTGNCAGTTCAGAGACCCCTGGTCTCT
GTGACGGTGTCAGATGCCTCCTGGGTCTCAGAACTGCTGTGGTCACTTTTCGTCCCTTTC
ACGTGTATCAAGTAAGGTGGCTTCGTCCTGTTCATCGCCACTAGGGGAAGCGAATTGAGA
GTTTGCACTCCCTGTACCACAGCCTGGTGCCCAAGGNAATGGGCCCAAACCGGGACACGG
CTCCACTCAGCTGACCAAGCAGAGCCCATGAAGCGACCAAGACCCCCCAGAATGGGCCCC
CAAGTAACCCAGTCTTCTTTCCCTCCCTCCCCTGACCT

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_181575 unedited
AGCTATGNACCCGCGGCCGCAATCTAGGATCGAGTTTTTTTTTTTTTTTTTTGAATGAA
AACCTGAATTTAATGTGACATTGGGGGAGCCTCATCCTTCCCTTTTTACCACCCACCCAT
CCAGCCTGTTGTGAGTTGGGTGAGGGCTGCCCCCAGTCTCCGTCCTGCGGCTCTGGGTGC
CATCCTGTTCCTTTGAGCTCAGTCAGCCTCCTGGGCTCGTCTCTCTGTGAATCTCCTTCT
TGCGTATTCATATAGTGCTTGCTTGCGCTCCTGCAGGCTCTCCTGCCGGGCCCAGGAAGA
CTTGGCAAATGTTAGGGCTGTTGGCTGAGGGGTCACCGGGCCAGAGCTGGGAAACTTGGA
GGCAGAGGCTGTGGGTAGGGACTGAGTTCCCTTGGTGATGTCTTCAGGCATGAAAGCTAC
GGCCCCCTCAAGCAGATTAGTGATAGTCAAGTCTACACAGCCAGTCTTGGCCAGGTCTCT
CTGGATGACACCCAATGGCACATGGGGCAAAACTTCCTTGACTCTCTGAGCCAGAGTTGC
CAGTTGCACATCAGGAGAAGGACCAGGGGAGGGAGGGAAAGAAGACTGGGCTGACTGGGG
GCGCAATCTGGGGTGTCTTTGTCGCTTCATGTGCTCTGCTTTGTCAGCTGGAGTGAGCCG
TGTCCCTGTCTGGCCCAATTCCTTGGCCACCAGCTGTTGTACACGGAGTGCAAACTCCTC
ATTCGCTTCCCCTAGTTGGCGATGAACAGGACGAAACCACCTTACTTGATACACCGTGAA
AGGACGAANAGTGACCACAGCAGTTCTGAGACCCAGNAGGCATCTGACACCCGTCACAGA
GACCAGGGGTCTCTGAACTTGCAGGGTAAGAGGTTGTACCACATCTGGNATAAC

Restriction Sites: NotI-NotI

ACCN: NM_181575

Insert Size: 1600 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

OTI Annotation: This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

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: NM_181575.2, NP_853553.1

RefSeq Size: 1561 bp

RefSeq ORF: 1233 bp

Locus ID: 550

UniProt ID: Q9Y679

Cytogenetics: 2p13.1

Protein Families: Druggable Genome, Transmembrane

Gene Summary: 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 trigylycerides 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 acetyltranferase domain, a ubiquitin-binding CUE domain, and a UBE2B2-binding domain (G2BR). Alternative splicing results in multiple transcript variants. [provided by RefSeq, Nov 2014]
Transcript Variant: This variant (2) represents the shortest transcript and encodes the functional protein.