

## Product datasheet for SC113349

### Ubiquitin (UBB) (NM\_018955) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Ubiquitin (UBB) (NM_018955) Human Untagged Clone
Tag:	Tag Free
Symbol:	Ubiquitin
Synonyms:	HEL-S-50
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC113349 sequence for NM_018955 edited (data generated by NextGen Sequencing)

```

ATGCAGATCTTCGTGAAAACCCCTTACCGCAAGACCATCACCCCTTGAGGTGGAGCCCAGT
GACACCATCGAAAATGTGAAGGCCAAGATCCAGGATAAGGAAGGCATTCCCCCGACCAG
CAGAGGCTCATCTTTGCAGGCAAGCAGCTGGAAGATGGCCGTA CTCTTTCTGACTACAAC
ATCCAGAAGGAGTCGACCCTGCACCTGGTCTGCGTCTGAGAGGTGGTATGCAGATCTTC
GTGAAGACCCTGACCGCAAGACCATCACCCCTGGAAGTGGAGCCCAGTGACACCATCGAA
AATGTGAAGGCCAAGATCCAGGATAAAGAAGGCATCCCTCCCGACCAGCAGAGGCTCATC
TTTGCAGGCAAGCAGCTGGAAGATGGCCGCACTCTTTCTGACTACAACATCCAGAAGGAG
TCGACCCTGCACCTGGTCTGCGTCTGAGAGGTGGTATGCAGATCTTCGTGAAGACCCTG
ACCGCAAGACCATCACTCTGGAGTGGAGCCCAGTGACACCATCGAAAATGTGAAGGCC
AAGATCCAAGATAAAGAAGGCATCCCCCGACCAGCAGAGGCTCATCTTTGCAGGCAAG
CAGCTGGAAGATGGCCGCACTCTTTCTGACTACAACATCCAGAAAAGAGTCGACCCTGCAC
CTGGTCTGCGCCTGAGGGGTGGCTGTAA

```

Clone variation with respect to NM\_018955.2



[View online »](#)

**5' Read Nucleotide Sequence:**

```
>OriGene 5' read for NM_018955 unedited
TGTAATACGACTCACTATAGGGCGGCCGAATTCGGCACGAGGGTCCCTGTGGGTGGAC
GTGGTTGGTGATTGGCAGGATCTGGTATCCGCTAACAGGTCAAATGCAGATCTTCGTG
AAAACCTTACCGGCAAGACCATCACCTTGAGGTGGAGCCCAGTGACACCATCGAAAAT
GTGAAGGCCAAGATCCAGGATAAGGAAGGCATCCCCCGACCAGCAGAGGCTCATCTTT
GCAGGCAAGCAGCTGGAAGATGGCCGTACTCTTCTGACTACAACATCCAGAAGGAGTCCG
ACCCTGCACCTGGTCTGCGTCTGAGAGGTGGTATGCAGATCTTCGTGAAGACCCTGACC
GGCAAGACCATCACCTGGAAGTGGAGCCAGTGACACCATCGAAAATGTGAAGGCCAAG
ATCCAGGATAAAGAAGGCATCCCTCCCGACCAGCAGAGGCTCATCTTTGCAGGCAAGCAG
CTGGAAGATGGCCGCACTCTTTCTGACTACAACATCCAGAAGGAGTCCGACCCTGCACCTG
GTCCTGCGTCTGAGAGGTGGTATGCAGATCTTCGTGAAGACCCTGACCGGCAAGACCATC
ACTCTGGAGGTGGAGCCCAGTGACACCATCGAAAATGTGAAGGCCAAGATCCAAGATAAA
GAAGGCATCCCCCGACCAGCAGAGGCTCATCTTTGCAGGCAAGCAGCTGGAAGATGGC
CGCACTCTTTCTGACTACAACATCCAGAAAGAGTCGACCCTGCACCTGGTCTGCGCCTG
AGGGGTGGCTGNTAATTCTTCAGTCATGGCATTTCGAGTCCCCAGTGATGGCATTACTCT
GCACTATAGCCATTTGCCCAACTAAAAGTTAGAATACAGNTNCAGTATAGCTGAACCTG
TCAAATGTATAAAGGTTTCGTGCATGTAGCAAAAAAAA
```

**3' Read Nucleotide Sequence:**

```
>OriGene 3' read for NM_018955 unedited
NAATACTGTGNACCGGCCGATTCTANNGATCGTTTTTTTTTTTTTTTTTTTTGCTACC
ATGCAACGAAACCTTTTAAACATTTTGAACAGGTTTCAGCTATTACTGAACTTGTAAAT
TCTAAACTTAAGTTGGGGCAAATGGCTATAGTGCAGAGTAATGCCATCACTGGGCACTGC
GAATGCCATGACTGAAGAATTAACAGCCACCCCTTATGCGCAGGACCAGGTGCAGGGTCCG
ACTCTTTCTGGATGTTGTAGTCAGAAAGAGTGCAGCCATCTTCCAGCTGCTTGCCTGCAA
AGATGAGCCTCTGCTGGTTCGGGGGGGATGCCTTCTTTATCTTGGATCTTGGCCTTACAT
TTTTCGATGGTGTCACTGGGCTCCACCTCCAGAGTGATGGTCTTGCCTGTCAGGGTCTTCA
CGAAGATCTGCATACCACCTCTCAGACGCAGGACCAGGTGCAGGGTTCGACTCCTTCTGGA
TGTTGTAGTCAGAAAGAGTGCAGCCATCTTCCAGCTGCTTGCCTGCAAAGATGAGCCTCT
GCTGGTTCGGGAGGGATGCCTTCTTATCCTGGATCTTGGCCTTACATTTTCGATGGTGT
CACTGGGCTCCACTTCCAGGGTGATGGTCTTGCCTGTCAGGGTCTTCCAGGATCTGCA
TACCACCTCTCAGACGCANGACCAGGTGCAGGGTTCGACTCCTTCTGGATGTTGTAGTCAG
AAAAGTACGGCCATCTTCCAGCTGCTTGCCTGCAAAGATGAGCCTCTGCTGGTTCGGGGG
GATGCCTTNCCTATCCTGGATCTGGNCCTTACATTTTCGAGGTGTCAGTGGGCTTCAAC
TCCAAGGTGATGGTCTTGCCTTAGGGTTTTACGAAAATCTGCATTTGACCTGTTACCG
AAACCAGGATACTGGCAT
```

**Restriction Sites:**

NotI-NotI

**ACCN:**

NM\_018955

**Insert Size:**

1000 bp

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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](#)

**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\\_018955.2](#), [NP\\_061828.1](#)

**RefSeq Size:** 971 bp

**RefSeq ORF:** 690 bp

**Locus ID:** 7314

**UniProt ID:** [P0CG47](#)

**Cytogenetics:** 17p11.2

**Domains:** UBQ

**Protein Families:** Druggable Genome

**Protein Pathways:** Parkinson's disease

**Gene Summary:**

This gene encodes ubiquitin, one of the most conserved proteins known. Ubiquitin has a major role in targeting cellular proteins for degradation by the 26S proteasome. It is also involved in the maintenance of chromatin structure, the regulation of gene expression, and the stress response. Ubiquitin is synthesized as a precursor protein consisting of either polyubiquitin chains or a single ubiquitin moiety fused to an unrelated protein. This gene consists of three direct repeats of the ubiquitin coding sequence with no spacer sequence. Consequently, the protein is expressed as a polyubiquitin precursor with a final amino acid after the last repeat. An aberrant form of this protein has been detected in patients with Alzheimer's disease and Down syndrome. Pseudogenes of this gene are located on chromosomes 1, 2, 13, and 17. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Aug 2013]

Transcript Variant: This variant (1) represents the longest transcript. Variants 1, 2, 3, 4, 5, and 6 encode the same protein.