

## Product datasheet for **SC301033**

### Sumo 1 (SUMO1) (NM\_001005781) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Sumo 1 (SUMO1) (NM_001005781) Human Untagged Clone
Tag:	Tag Free
Symbol:	Sumo 1
Synonyms:	DAP1; GMP1; OFC10; PIC1; SENP2; SMT3; SMT3C; SMT3H3; UBL1
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL5</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_003352, the custom clone sequence may differ by one or more nucleotides

```
ATGTCTGACCAGGAGGCAAACCTTCAACTGAGGACTTGGGGGATAAGAAGGAAGGTGAATATATTAAC
TCAAAGTCATTGGACAGGATAGCAGTGAGATTCACCTTCAAAGTAAAATGACAACACATCTCAAGAACT
CAAAGAATCATACTGTCAAAGACAGGGTGTCCAATGAATTCACCTCAGGTTTCTCTTTGAGGGTCAGAGA
ATTGCTGATAATCATACTCCAAAAGAACTGGGAATGGAGGAAGAAGATGTGATTGAAGTTTATCAGGAAC
AAACGGGGGGTCATTCAACAGTTTAG
```

Restriction Sites:	NotI-NotI
ACCN:	NM_001005781
Insert Size:	1100 bp



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**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](#)

**OTI Annotation:** The open reading frame of this clone has been fully sequenced and found to be a perfect match to the protein associated with this reference, NM\_001005781.1.

**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\\_001005781.1](#), [NP\\_001005781.1](#)

**RefSeq Size:** 1078 bp

**RefSeq ORF:** 306 bp

**Locus ID:** 7341

**UniProt ID:** [P63165](#)

**Cytogenetics:** 2q33.1

**Protein Families:** Druggable Genome, Stem cell - Pluripotency, Transcription Factors

**Gene Summary:**

This gene encodes a protein that is a member of the SUMO (small ubiquitin-like modifier) protein family. It functions in a manner similar to ubiquitin in that it is bound to target proteins as part of a post-translational modification system. However, unlike ubiquitin which targets proteins for degradation, this protein is involved in a variety of cellular processes, such as nuclear transport, transcriptional regulation, apoptosis, and protein stability. It is not active until the last four amino acids of the carboxy-terminus have been cleaved off. Several pseudogenes have been reported for this gene. Alternate transcriptional splice variants encoding different isoforms have been characterized. [provided by RefSeq, Jul 2008]

Transcript Variant: This variant (2) contains an additional exon at the 3' end compared to variant 1. Both variants 1 and 2 encode the same isoform (a).