

## Product datasheet for MR200317

### Sumo1 (NM\_009460) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Sumo1 (NM_009460) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Sumo1
Synonyms:	GMP1; PIC1; SENTRIN; SMT3; Smt3C; SMT3H3; SMTP3; SUMO-1; Ubl1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	<p>&gt;MR200317 ORF sequence  <b>Red</b>=Cloning site <b>Blue</b>=ORF <b>Green</b>=Tags(s)</p> <p>TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCC<b>CGATCGCC</b></p> <p>ATGCTGACCAGGAGGCAAACCTTCAACTGAGGACTTAGGCGATAAGAAGGAAGGAGAATACATTAAC  TCAAAGTTATTGGACAGGATAGCAGTGAGATACATTTCAAAGTAAAAATGACAACACATCTCAAGAACT  CAAAGAATCATACTGTCAAAGACAGGGAGTTCCAATGAATCACTCAGGTTTCTTTGAAGTCAGAGA  ATTGCTGATAATCATACTCCGAAAGAACTGGGAATGGAGGAAGAAGATGTGATTGAAGTTATCAGGAAC  AAACGGGGGGTCACTCGACGGTT</p> <p><b>ACGCGT</b>ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  ACAAGGATGACGACGATAAGGTTTAA</p>
Protein Sequence:	<p>&gt;MR200317 protein sequence  <b>Red</b>=Cloning site <b>Green</b>=Tags(s)</p> <p>MSDQEAKPSTEDLGDKKEGEYIKLKVIGQDSSEIHFVKVMTTHLKKLKESYCRQGVPMNSLRFLFEGQR  IADNHTPKELGMEEEDVIEVYQEQTGGHSTV</p> <p><b>TR</b>TRPLEQKLISEEDLAANDILDYKDDDDKV</p>
Restriction Sites:	Sgfl-Mlul



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**Cloning Scheme:**


**ACCN:** NM\_009460

**ORF Size:** 306 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.

**RefSeq:** [NM\\_009460.2](#), [NP\\_033486.1](#)

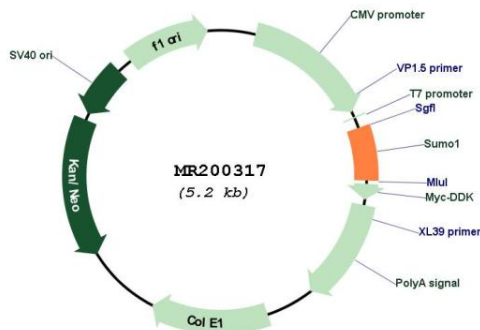
**RefSeq Size:** 1230 bp

**RefSeq ORF:** 306 bp

**Locus ID:** 22218  
**UniProt ID:** [P63166](#)  
**Cytogenetics:** 1 C2  
**MW:** 11.6 kDa

**Gene Summary:** Ubiquitin-like protein that can be covalently attached to proteins as a monomer or a lysine-linked polymer. Covalent attachment via an isopeptide bond to its substrates requires prior activation by the E1 complex SAE1-SAE2 and linkage to the E2 enzyme UBE2I, and can be promoted by E3 ligases such as PIAS1-4, RANBP2 or CBX4. This post-translational modification on lysine residues of proteins plays a crucial role in a number of cellular processes such as nuclear transport, DNA replication and repair, mitosis and signal transduction. Involved for instance in targeting RANGAP1 to the nuclear pore complex protein RANBP2. Covalently attached to the voltage-gated potassium channel KCNB1; this modulates the gating characteristics of KCNB1. Polymeric SUMO1 chains are also susceptible to polyubiquitination which functions as a signal for proteasomal degradation of modified proteins. May also regulate a network of genes involved in palate development. Covalently attached to ZFH3 (By similarity).[UniProtKB/Swiss-Prot Function]

### Product images:



Circular map for MR200317