

## Product datasheet for **MG200259**

### Sumo2 (NM\_133354) Mouse Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Sumo2 (NM\_133354) Mouse Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** Sumo2  
**Synonyms:** Smt3A; Smt3b; Smt3h2; SUMO-2  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >MG200259 representing NM\_133354  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCCGACGAGAAACCAAGGAAGGAGTCAAGACTGAGAACAACGATCATATTAATTTGAAGGTGGCGG  
GACAGGATGGTTCTGTGGTGCAGTTTAAGATTAAGAGGCATACACCACTTAGTAACTAATGAAAGCCTA  
TTGTGAACGGCAGGGTTTGTCAATGAGGCAGATCAGATTCGGTTTGTATGGGCAGCCAATCAACGAAACA  
GACACACCTGCACAGTTGAAATGGAGGATGAAGATACGATTGATGTGTCCAGCAGCAGACTGGAGGTG  
TCTAC

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >MG200259 representing NM\_133354  
Red=Cloning site Green=Tags(s)  
MADEKPKKEGVKTENNDHINLKVAGQDGSVVQFKIKRHTPLSKLMKAYCERQGLSMRQIRFRFDGQPINET  
DTPAQLEMEDEDTIDVFQQQTGGVY

**TRTRPLE** - GFP Tag - V

**Chromatograms:** [https://cdn.origene.com/chromatograms/ja1821\\_f04.zip](https://cdn.origene.com/chromatograms/ja1821_f04.zip)

**Restriction Sites:** Sgfl-MluI



[View online »](#)

Cloning Scheme:



ACCN: NM\_133354

ORF Size: 285 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](#)

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\\_133354.2](#), [NP\\_579932.1](#)

**RefSeq Size:** 998 bp

**RefSeq ORF:** 288 bp

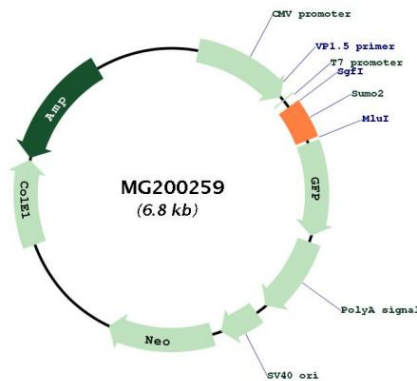
**Locus ID:** 170930

**UniProt ID:** [P61957](#)

**Cytogenetics:** 11 E2

**Gene Summary:** Ubiquitin-like protein that can be covalently attached to proteins as a monomer or as 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 an E3 ligase 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. Polymeric SUMO2 chains are also susceptible to polyubiquitination which functions as a signal for proteasomal degradation of modified proteins. Plays a role in the regulation of sumoylation status of SETX (By similarity).[UniProtKB/Swiss-Prot Function]

### Product images:



Circular map for MG200259