

## Product datasheet for **MG203761**

### Smug1 (NM\_027885) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Smug1 (NM_027885) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Smug1
Synonyms:	1200013B09Rik; A930006H09Rik; C85220
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG203761 representing NM_027885 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCTGCGTCCCAGACCTTCCCACTGGGGCCTACCCATGAGCCTGCAAGCGCCCTGATGGAGCCTCTGC  
CTTGTACACGAAGCTTGGCTGAGGGCTTCTGGAGGAGGAGCTTCGGCTCAATGCCGAGCTGAGCCAGCT  
GCAGTTCCCGGAGCCCGTGGGTGTCATCTACAACCCGGTGGATTATGCTTGGGAGCCACACCGTAACTAT  
GTGACTCGCTACTGCCAAGGCCCAAGGAAGTGTGTTCTTGGGCATGAACCCAGGACCTTTTGGCATGG  
CCCAAACAGGGGTACCCTTTGGGAAGTGAATGTGGTCCGGGACTGGTTGGGCGTTGGGGCCCTGTGCT  
GACCCCTCCACAAGAGCACCCCAAGCGACCAAGTGTGGGACTGGAGTGCCACAGTCAGAGGTGAGCGGA  
GCCCGATTCTGGGGCTTTTTCCGGACCCTCTGCGGACAGCCTCAAGTCTTCTCCGGCACTGCTTTGTCC  
ACAATCTGTGTCCTACTCTTCTTGGCTCCCAGTGGACGAAACCTTACCCAGCTGAGCTGCCGCCAA  
GCAGCGGGAGCAGCTGTGTCGATCTGCGACGCAGCCCTCTGCCGGCAGGTGCAGCTGCTAGGGGTGCGT  
CTGGTAGTGGGAGTGGGGCGGCTGGCAGAGCAGCGAGCCGAAGAGCTCTAGCAGGGCTGACCCCGGAGG  
TGCAGGTGGAGGGCTCCTGCATCCATCTCCTCGAAGCGCACAGGCCAACAAAGGCTGGGAGGCGGCAGC  
CAGGAAAAGACTCCAGGAGTTGGGGCTGCTGCCTCTGCTAACGGATGAGGGTTCAGCCAGACCTACA

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >MG203761 representing NM\_027885  
 Red=Cloning site Green=Tags(s)

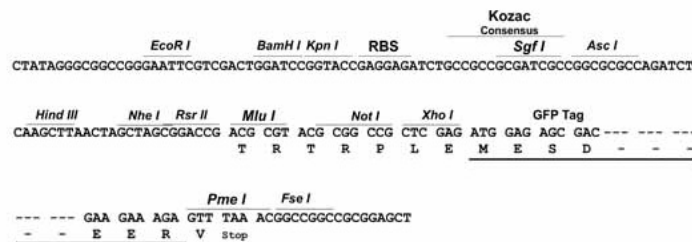
MAASQTFPLGPTHEPASALMEPLPCTRS LAEGFLEELRLNAELSQLQFPEPVGVIYNPVDYAWEPHRNY  
 VTRYCQGPKEVFLGMNPGPFGMAQTGVPFGEVNVVRDWLVGGPVLTPPQEHKRPVLECPQSEVSG  
 ARFWGFFRTL CGQPQVFRHCFVHNLCPLLFLAPSGRNLTPAELPAKQREQLLSICDAALCRQVQLLGVR  
 LVVGVGR LAEQRRARALAGLTPEVQVEGLLHPSR SAQANKGWEAAARERLQELGLLPLL TDEGSARPT

TRTRPLE - GFP Tag - V

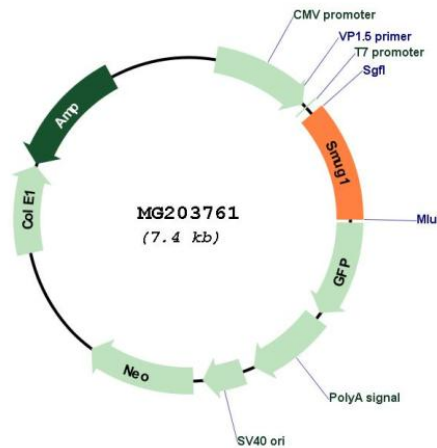
**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shutting:



**Plasmid Map:**



**ACCN:** NM\_027885

**ORF Size:** 837 bp

<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_027885.3</a> , <a href="#">NP_082161.2</a>
<b>RefSeq Size:</b>	3611 bp
<b>RefSeq ORF:</b>	840 bp
<b>Locus ID:</b>	71726
<b>UniProt ID:</b>	<a href="#">Q6P5C5</a>
<b>Cytogenetics:</b>	15 F3
<b>Gene Summary:</b>	Recognizes base lesions in the genome and initiates base excision DNA repair. Acts as a monofunctional DNA glycosylase specific for uracil (U) residues in DNA with a preference for single-stranded DNA substrates. The activity is greater toward mismatches (U/G) compared to matches (U/A). Excises uracil (U), 5-formyluracil (fU) and uracil derivatives bearing an oxidized group at C5 [5-hydroxyuracil (hoU) and 5-hydroxymethyluracil (hmU)] in ssDNA and dsDNA, but not analogous cytosine derivatives (5-hydroxycytosine and 5-formylcytosine), nor other oxidized bases. The activity is damage-specific and salt-dependent. The substrate preference is the following: ssDNA > dsDNA (G pair) = dsDNA (A pair) at low salt concentration, and dsDNA (G pair) > dsDNA (A pair) > ssDNA at high salt concentration.[UniProtKB/Swiss-Prot Function]