

## Product datasheet for **RG203451**

### Smoothened (SMO) (NM\_005631) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Smoothened (SMO) (NM_005631) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Smoothened
Synonyms:	CRJS; FZD11; Gx; PHLS; SMOH
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide  
Sequence:

>RG203451 representing NM\_005631  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCCGCGATCGCC

ATGGCCGCTGCCCGCCAGCGCGGGGGCCGGAGCTCCCGCTCCTGGGGCTGCTGCTGCTGCTGCTGG  
 GGGACCCGGGCGGGGGCGGCCTCGAGCGGGAACGCGACCGGGCTGGGCTCGGAGCGGGCGGGAG  
 CGCGAGGAGGAGCGCGGGTACTGGCCCTCCGCGCCGCTGAGCCACTGCGGGCCGGGCTGCCCCCTGC  
 GAGCCGCTGCGCTACAACGTGTGCTGGGCTCGGTGCTGCCCTACGGGGCCACCTCCACACTGCTGGCCG  
 GAGACTCGGACTCCAGGAGGAAGCGCACGGCAAGCTCGTCTGGTGGGCTCCGGAATGCCCCCG  
 CTGCTGGGCACTGATCCAGCCCCTGCTGTGTGCCGTATACATGCCAAGTGTGAGAATGACCGGGTGGAG  
 CTGCCAGCCGTACCCTCTGCCAGGCCACCGAGGCCCTGTGCCATCGTGGAGAGGGAGCGGGCTGGC  
 CTGACTTCTGCGCTGCACTCCTGACCGCTTCCCTGAAGGCTGCACGAATGAGGTGCAGAACATCAAGTT  
 CAACAGTTCAGGCCAGTGCAGAGTGCCTTGGTTCGGACAGACAACCCCAAGAGCTGGTACGAGGACGTG  
 GAGGGCTGCGGCATCCAGTGCCAGAACCCTCTTACAGAGGCTGAGCACCAGGACATGCACAGCTACA  
 TCGCGGCCTTCGGGGCCGTACGGGCTCTGCACGCTTTCACCCCTGGCCACATTCGTGGCTGACTGGCG  
 GAACTCGAATCGTACCCTGCTGTTATTCTTCTACGTCAATGCGTGTCTTTGTGGGACGATTGGC  
 TGGCTGGCCAGTTATGGATGGTGGCCCGAGAGATCGTCTGCCGTGCAGATGGCACCATGAGGCTTG  
 GGGAGCCACCTCCAATGAGACTCTGTCTGCGTCATCATCTTTGTATCGTGTACTACGCCCTGATGGC  
 TGGTGTGGTTTGGTTTGGTCCACCTATGCCTGGCACACTTCTTCAAAGCCCTGGGACCACCTAC  
 CAGCCTCTCGGGCAAGACCTCTACTCCACCTGCTCACCTGGTCACTCCCTTTGTCTCACTGTGG  
 CAATCCTTGTGTGGCGCAGGTGGATGGGACTCTGTGAGTGGCATTGTTTTGTGGGCTACAAGAATG  
 CCGATACCGTGGGGCTTCGTGCTGGCCCAATCGGCCTGGTGTCTCATCGTGGGAGGCTACTTCTCATC  
 CGAGGAGTCATGACTCTGTTCTCCATCAAGAGCAACCACCCGGGCTGCTGAGTGAGAAGGCTGCCAGCA  
 AGATCAACGAGACCATGCTGCGCCTGGGCATTTTTGGCTTCTGGCCTTTGGCTTTGTGCTCATTACCTT  
 CAGCTGCCACTTCTACGACTTCTTCAACCAGGCTGAGTGGGAGCGCAGCTTCCGGGACTATGTGCTATGT  
 CAGGCCAATGTGACCATCGGGCTGCCACCAAGCAGCCCATCCCTGACTGTGAGATCAAGAATCGCCCGA  
 GCCTTCTGGTGGAGAAGATCAACCTGTTTGCCATGTTTGAAGTGGCATCGCCATGAGCACCTGGGTCTG  
 GACCAAGGCCACGCTGCTCATCTGGAGGCGTACCTGGTGCAGTTGACTGGCAGAGTGACGATGAGCCA  
 AAGCGGATCAAGAAGAGCAAGATGATTGCAAGGCCTTCTTAAGCGGCACGAGCTCCTGCAGAACCCAG  
 GCCAGGAGCTGTCTTACGATGCACACTGTGTCCACGACGGGCCCGTGGCGGGCTTGGCCTTTGACCT  
 CAATGAGCCCTCAGCTGATGTCTCTCTGCCTGGGCCAGCATGTACCAAGATGGTGGCTCGGAGAGGA  
 GCCATACTGCCCCAGGATATTTCTGCACCCCTGTGGCAACTCCAGTGGCCCCAGAGGAACAAGCCAACC  
 TGTGGCTGGTTGAGGCAGAGATCTCCCAAGAGCTGCAGAAAGCGCTGGGCCGGAAGAAGAAGAGGAGGA  
 GAGGAAGAAGGAGGTGTGCCCGTGGCGCCGCCCTGAGCTTACCCCCCTGCCCTGCCCCAGTACC  
 ATTCCTCGACTGCCTCAGCTGCCCCGGCAGAAATGCCTGGTGGCTGCAGGTGCCTGGGAGCTGGGGACT  
 CTTGCCGACAGGGAGCGTGGACCCTGGTCTCAACCCATTCTGCCAGAGCCAGTCCCCCTCAGGATCC  
 ATTTCTGCCAGTGACCGGCCCCCGTGGCATGGGCTCATGGCCGCCACAGGGCCCTGGGCCTATTAC  
 TCCCGCACCAACCTGATGGACACAGAACTCATGGATGCAGACTCGGACTTC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >RG203451 representing NM\_005631  
 Red=Cloning site Green=Tags(s)

MAAARPARGPPELLLLGLLLLLLLGDPGRGAASSGNATGPGPRSAGGSARRSAAVTGPPPPLSHCGRAAPC  
 EPLRYNVCLGSVLPYGATSTLLAGSDSQEEAHGKLVLSGLRNAPRCWAVIQPLLCAVYMPKCENDRVE  
 LPSRTLCAQTRGPCAIVERERGWPDFLRCTPDRFPEGCTNEVQNIKFNSSGQCEVPLVRTDNPKSWYEDV  
 EGCGIQCNPLFTEAEHQDMHSYIAAFGAVTGLCTLFTLATFVADWRNSNRYPAVILFYVNACFFVGSIG  
 WLAQFMDGARREIVCRADGTMRLGEPTSNETLSCVIFVIVVYALMAGVVWFVVLTYAWHTSFKALGTTY  
 QPLSGKTSYFHLLTWSLPFVLTVAILAVAQVDGDSVSGICFVGKYNRYRAGFVLAPIGLVLI VGGYFLI  
 RGVMTLFSIKSNHPGLLSEKAASKINETMLRLGIFGLAFGFVLITFSCHFYDFFNQAEWERSFRDYVLC  
 QANVTIGLPTKQPIPDCEIKNRPSLLVEKINLFAMFGTGIAMSTWVWTKATLLIWRRTWCRLTGQSDDEP  
 KRIKSKMIAKAFSKRHELLQNPQELSFMSHTVSHDGPVAGLAFDLNEPSADVSSAWAQHVTKMVARRG  
 AILPQDISVTPVATPVPPEEQANLWVEAEISPELQKRLGRKKRRRKRKKEVCLAPPELHPPAPAPST  
 IPRLPQLPRQKCLVAAGAWGAGDSCRQGAWTLVSNPFCPEPSPQDPFLPSAPAPVAWAHGRRQGLGPIH  
 SRTNLMDELMDADSDF

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:

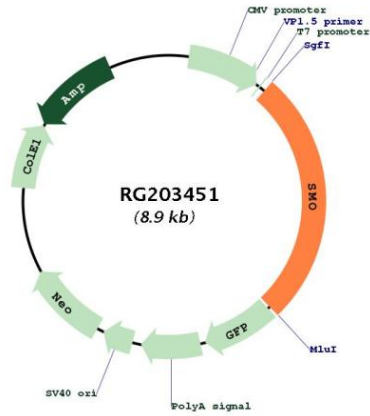


ACCN: NM\_005631

ORF Size: 2361 bp

<b>OTI Disclaimer:</b>	<p>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 <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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></p>
<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_005631.3</a> , <a href="#">NP_005622.1</a>
<b>RefSeq Size:</b>	3772 bp
<b>RefSeq ORF:</b>	2364 bp
<b>Locus ID:</b>	6608
<b>UniProt ID:</b>	<a href="#">Q99835</a>
<b>Cytogenetics:</b>	7q32.1
<b>Protein Families:</b>	Druggable Genome, ES Cell Differentiation/IPS, Stem cell relevant signaling - DSL/Notch pathway, Transmembrane
<b>Protein Pathways:</b>	Basal cell carcinoma, Hedgehog signaling pathway, Pathways in cancer
<b>Gene Summary:</b>	The protein encoded by this gene is a G protein-coupled receptor that interacts with the patched protein, a receptor for hedgehog proteins. The encoded protein transduces signals to other proteins after activation by a hedgehog protein/patched protein complex. [provided by RefSeq, Jul 2010]

Product images:



Circular map for RG203451