OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for MG210692

Smo (NM_176996) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Smo (NM_176996) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Smo
Synonyms:	bnb; E130215L21Rik; Smoh; smoothened
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

View online »

ORF Nucleotide Sequence:

>MG210692 representing NM_176996
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCCGCTGGCCGCCCCGTGCGTGGGCCCGAGCTGGCGCCCCGGAGGCTGCTGCAGTTGCTGCTGCTGG
TACTGCTGGGGGGCCCGGGCCGGGGGGCGGCCTTGAGCGGGAACGTGACCGGGCCTGGGCCTCACAGCGC
CAGCGGGAGCTCGAGGAGGGACGTGCCGGTGACCAGCCCTCCGCCGCCGCTGCTGAGCCACTGCGGCCGG
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CGCTGCTGGCTGGGGACTCGGACTCGCAGGAGGAAGCGCACGGCAAGCTCGTGCTCTGGTCCGGCCTCCG
GAATGCCCCCCGCTGCTGGGCAGTGATCCAGCCCCTGCTGTGTGCTGTCTACATGCCCAAGTGTGAGAAT
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AAACATCAAGTTCAACAGCTCAGGCCAATGTGAAGCACCCTTGGTGCGAACAGACAACCCCAAGAGCTGG
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TGCACAGCTACATCGCAGCCTTCGGGGCGGTCACTGGTCTCTGCACGCTCTTCACACTGGCCACCTTTGT
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GGCAGCATTGGCTGGCTGGCCCAGTTCATGGATGGTGCCCGCCGAGAGATTGTTTGCCGAGCAGATGGCA
CCATGAGATTTGGGGAGCCCACCTCCAGTGAGACCCTGTCCTGTGTCATCATCTTTGTCATTGTGTACTA
TGCCTTGATGGCTGGAGTAGTCTGGTTCGTGGTCCTCACCTATGCCTGGCACACCTCCTTCAAAGCCCTG
GGCACCACCTACCAGCCTCTCTCGGGCAAGACATCCTATTTCCACCTGCTCACGTGGTCACTCCCCTTTG
TCCTCACGGTGGCAATCCTGGCTGTGGCTCAGGTAGATGGAGACTCCGTGAGTGGCATCTGTTTTGTAGG
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TATGTGCTATGCCAAGCCAACGTGACCATCGGGCTGCCTACCAAGAAGCCCATTCCTGACTGTGAGATCA
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CACCTGGGTCTGGACCAAGGCCACCCTGCTCATCTGGAGGCGCACCTGGTGCAGGTTGACTGGGCACAGT
GATGATGAGCCCAAGAGAATCAAGAAGAGCAAGATGATCGCCAAGGCCTTCTCTAAGCGGCGTGAGCTGC
TGCAGAACCCGGGCCAGGAGCTCTCCTTCAGCATGCACACTGTCTCCCATGATGGACCTGTTGCGGGTTT
GGCTTTTGACCTCAATGAACCCTCAGCTGACGTCTCCTCTGCCTGGGCTCAGCATGTCACCAAGATGGTG
GCTCGGAGAGGAGCCATATTGCCCCAGGATGTGTCCGTTACCCCTGTGGCAACTCCAGTGCCACCAGAAG
AACAAGCCAACATGTGGCTGGTTGAGGCAGAGATCTCCCCAGAGTTAGAGAAGCGTTTGGGCCGGAAGAA
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CCTGGGGAACAGGGGAGTCCTGCCGACAGGGAGCCTGGACTCTAGTCTCCAACCCCTTCTGCCCAGAGCC
TAGTCCCCATCAAGATCCATTTCTCCCTGGTGCCTCAGCCCCCCGGGTCTGGGCTCAGGGCCGCCTCCAG
GGGCTGGGATCCATTCATTCCCGCACTAACCTAATGGAGGCTGAGATCTTGGATGCAGACTCGGACTTC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

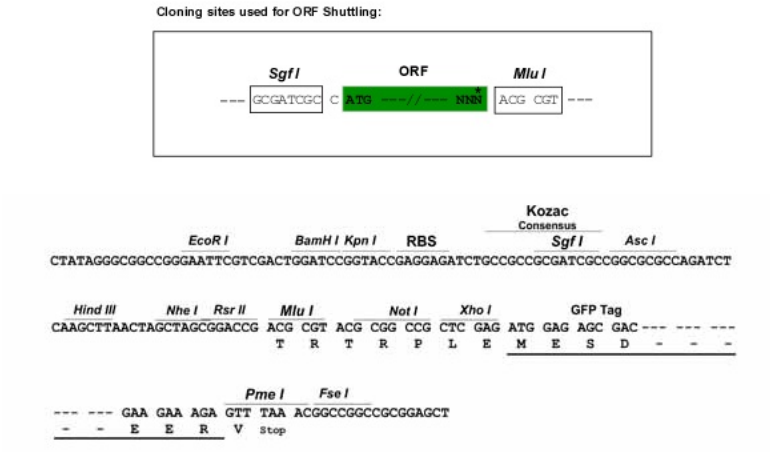
>MG210692 representing NM_176996
Red=Cloning site Green=Tags(s)

MAAGRPVRGPELAPRRLLQLLLLVLLGGPGRGAALSGNVTGPGPHSASGSSRRDVPVTSPPPPLLSHCGR
AAHCEPLRYNVCLGSALPYGATTTLLAGDSDSQEEAHGKLVLWSGLRNAPRCWAVIQPLLCAVYMPKCEN
DRVELPSRTLCQATRGPCAIVERERGWPDFLRCTPDHFPEGCPNEVQNIKFNSSGQCEAPLVRTDNPKSW
YEDVEGCGIQCQNPLFTEAEHQDMHSYIAAFGAVTGLCTLFTLATFVADWRNSNRYPAVILFYVNACFFV
GSIGWLAQFMDGARREIVCRADGTMRFGEPTSSETLSCVIIFVIVYYALMAGVVWFVVLTYAWHTSFKAL
GTTYQPLSGKTSYFHLLTWSLPFVLTVAILAVAQVDGDSVSGICFVGYKNYRYRAGFVLAPIGLVLIVGG
YFLIRGVMTLFSIKSNHPGLLSEKAASKINETMLRLGIFGFLAFGFVLITFSCHFYDFFNQAEWERSFRD
YVLCQANVTIGLPTKKPIPDCEIKNRPSLLVEKINLFAMFGTGIAMSTWVWTKATLLIWRRTWCRLTGHS
DDEPKRIKKSKMIAKAFSKRRELLQNPGQELSFSMHTVSHDGPVAGLAFDLNEPSADVSSAWAQHVTKMV
ARRGAILPQDVSVTPVATPVPPEEQANMWLVEAEISPELEKRLGRKKKRRKRKKEVCPLRPAPELHHSAP
VPATSAVPRLPQLPRQKCLVAANAWGTGESCRQGAWTLVSNPFCPEPSPHQDPFLPGASAPRVWAQGRLQ
GLGSIHSRTNLMEAEILDADSDF

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:

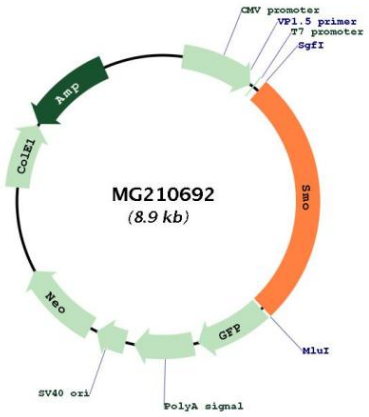


ACCN: NM_176996

ORF Size: 2379 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 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_176996.4, NP_795970.3
RefSeq Size:	3977 bp
RefSeq ORF:	2382 bp
Locus ID:	319757
UniProt ID:	P56726
Cytogenetics:	6 12.36 cM
Gene Summary:	G protein-coupled receptor that probably associates with the patched protein (PTCH) to transduce the hedgehog's proteins signal. Binding of sonic hedgehog (SHH) to its receptor patched is thought to prevent normal inhibition by patched of smoothened (SMO) (By similarity). Required for the accumulation of KIF7, GLI2 and GLI3 in the cilia. Interacts with DLG5 at the ciliary base to induce the accumulation of KIF7 and GLI2 at the ciliary tip for GLI2 activation (PubMed:25644602).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MG210692