

Product datasheet for **MC221670**

Smo (NM_176996) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Smo (NM_176996) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Smo
Synonyms:	bnb; E130215L21Rik; Smoh; smoothed
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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Fully Sequenced ORF: >MC221670 representing NM_176996
 Red=Cloning site Blue=ORF

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCCGCTGGCCGCCCGCTGCGTGGGCCCGAGCTGGCGCCCGGAGGCTGCTGCAGTTGCTTCTGCTGG
 TACTGCTGGGGGCCCGGGCCGGGGGGCGCCTTGAGCGGGAACGTGACCGGGCCTGGGCCCTCACAGCGC
 CAGCGGGAGCTCGAGGAGGGACGTGCCGGTGACCAGCCCTCCGCCCGCTGCTGAGCCACTGCGGCCGG
 GCCGCCACTGCGAGCCTTTGCGCTACAACGTGTGCCTGGGCTCGGCGTGCCCTACGGAGCCACCACCA
 CGCTGCTGGTGGGACTCGGACTCGCAGGAGGAAGCGCACGGCAAGCTCGTGTCTGGTCCGGCCTCCG
 GAATGCCCCCGCTGCTGGGAGTGATCCAGCCCTGCTGTGTGTGTCTACATGCCAAGTGTGAGAAT
 GACCGAGTGGAGTTGCCAGCCGTACCCTCTGCCAGGCCACCCGAGGCCCTGTGCCATTGTGGAGCGGG
 AGCGAGGGTGGCCTGACTTTCTGCGTTGCACACCGGACCCTCCCTGAAGGCTGCCAAACGAGGTACA
 AAACATCAAGTTCAACAGCTCAGGCCAATGTGAAGCACCTTGGTGCGAACAGACAACCCCAAGAGCTGG
 TATGAGGACGTGGAGGGCTGTGGGATTAGTGTGAGAACCCTGTTACCGAGGCCGAGACCAGGACA
 TGCACAGCTACATCGCAGCCTTCGGGGCGGTACTGGTCTCTGCACGCTCTTCACTGGCCACCTTTGT
 GGCTGACTGGCGAACTCCAATCGCTACCCTGCGGTTATTCTTCTATGTCAATGCGTGTTTCTTCGTTG
 GGCAGCATTGGCTGGCTGGCCAGTTTATGGATGGTGGCCGCCGAGAGATTGTTTGGCAGCAGATGGCA
 CCATGAGATTTGGGGAGCCACCTCCAGTGAGACCCTGTCTGTGCATCATCTTTGTCAATTGTGTACTA
 TGCCTTGATGGCTGGAGTAGTCTGGTTCGTGGTCTCACCTATGCCTGGCACACCTCCTCAAAGCCCTG
 GGCACCACCTACCAGCCTCTCTCGGGCAAGACATCCTATTTCCACCTGCTCACGTGGTCACTCCCTTTG
 TCCTCACGGTGGCAATCCTGGCTGTGGCTCAGGTAGATGGAGACTCCGTGAGTGGCATCTGTTTTGTAGG
 CTAACAAGAACTATCGGTACCGTGGCTTTGTCCTGGCCCAATTGGCCTGGTGTCTATTGTGGGAGGC
 TACTTCTCATCAGAGGGTCTGACTCTGTTCTCCATCAAGAGCAACCACCTGGGCTTCTGAGTGAGA
 AGGCAGCCAGCAAGATCAACGAGACCATGCTGCGCCTGGGCATTTTTGGCTTCTGGCCTTTGGCTTTGT
 GCTCATCACCTTCAGCTGCCACTTCTATGACTTCTTCAACCAGGCTGAGTGGGAGCGTAGCTTCCGGGAC
 TATGTGCTATGCCAAGCCAACGTGACCATCGGGCTGCCTACCAAGAAGCCATTCTGACTGTGAGATCA
 AGAATCGGCCAGCCTCCTGGTGGAGAAGATCAATCTATTTGCCATGTTTGGCACTGGCATTGCCATGAG
 CACCTGGGTCTGGACCAAGGCCACCCTGCTCATCTGGAGGCGCACCTGGTGCAGGTTGACTGGGCACAGT
 GATGATGAGCCCAAGAGAATCAAGAAGAGCAAGATGATCGCCAAGCCTTCTTAAGCGGCTGAGCTGC
 TGCAGAACCCTGGGCCAGGAGCTCTCCTTACGATGCACACTGTCTCCCATGATGGACCTGTTGCGGGTTT
 GGCTTTTACCTCAATGAACCCTCAGCTGACGTCTCCTTGCCTGGGCTCAGCATGTCACCAAGATGGTG
 GCTCGGAGAGGAGCCATATTGCCCCAGGATGTGTCCGTTACCCCTGTGGCAACTCCAGTGCCACCAGAAG
 AACAAAGCCAACATGTGGCTGGTTGAGGCAGAGATCTCCCAGAGTTAGAGAAGCGTTTGGGCCGGAAGAA
 AAAGCGGAGGAAGAGGAAGAAGGAGGTGTGCCCTTGGAGCCAGCCCTGAGCTTCACTACTGCCCCCT
 GTTCTGCCACCAGTGCAGTTCTCGGCTGCCTCAGCTGCCTCGGCAGAAAGTGCCTGGTAGCTGCAAACG
 CCTGGGGAACAGGGGAGTCTGCCGACAGGGAGCCTGGACTCTAGTCTCAACCCCTTCTGCCAGAGCC
 TAGTCCCATCAAGATCCATTTCTCCTGGTGCCTCAGCCCCCGGGTCTGGGCTCAGGGCCGCCTCCAG
 GGGCTGGGATCCATTATTCCCGCACTAACCTAATGGAGGCTGAGATCTTGGATGCAGACTCGGACTTCT
 GA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: Sgfl-Mlul
ACCN: NM_176996
Insert Size: 2382 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](#)

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: [BC096028](#), [AAH96028](#)

RefSeq Size: 3542 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 smoothed (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]