

Product datasheet for **MR206991**

Smo (BC048091) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Smo (BC048091) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Smo
Synonyms:	D13Mgi8, Smoh
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR206991 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCCGCATCGCC

ATGGCCGCTGGCCGCCCGCTGCGTGGGCCCGAGCTGGCGCCCGGAGGCTGCTGCAGTTGCTGCTGCTGG
 TACTGCTGGGGGCCCGGGCCGGGGGGCGCCTTGAGCGGGAACGTGACCGGGCCTGGGCCCTCACAGCGC
 CAGCGGGAGCTCGAGGAGGAACGTGCCGGTGACCAGCCCTCCGCCCGCTGCTGAGCCACTGCGGCCGG
 GCCGCCACTGCGAGCCTTTGCGCTACAACGTGTGCCTGGGCTCGGCGCTGCCCTACGGAGCCACCACCA
 CGCTGCTGGTGGGACTCGGACTCGCAGGAGGAAGCGCACGGCAAGCTCGTGTCTGGTCCGGCCTCCG
 GAATGCCCGCTGCTGGGAGTATCCAGCCCTGCTGTGTGTGTCTACATGCCAAGTGTGAGAAT
 GACCGAGTGGAGTTGCCAGCCGTACCCTCTGCCAGGCCACCCGAGGCCCTGTGCCATTGTGGAGCGGG
 AGCGAGGGTGGCCTGACTTTCTGCGTTGCACCCGGACCCTCCCTGAAGGCTGCCAAACGAGGTACA
 AAACATCAAGTTCAACAGCTCAGGCAATGTGAAGCACCTTGGTGCGAACAGACAACCCCAAGAGCTGG
 TATGAGGACGTGGAGGGCTGTGGGATTCAAGTGTCAAGAACCCTGTTACCGAGGCCGAGCACCAGGACA
 TGCACAGCTACATCGCAGCCTTCGGGGCGGTCACTGGTCTCTGCACGCTCTTCACTGGCCACCTTTGT
 GGCTGACTGGCGAACTCCAATCGCTACCTGCGGTTATTCTTCTATGTCAATGCGTGTTTCTTCGTTG
 GGCAGCATTGGCTGGCTGGCCAGTTTATGGATGGTGGCCGCCGAGAGATTGTTTGGCAGCAGATGGCA
 CCATGAGATTTGGGGAGCCACCTCCAGTGAGACCCTGTCTGTGCATCATCTTTGTCAATTGTGTACTA
 TGCCTTGATGGCTGGAGTAGTCTGGTTCGTGGTCTCACCTATGCCTGGCACACCTCCTCAAAGCCCTG
 GGCACCACCTACCAGCCTCTCTCGGGCAAGACATCCTATTTCCACCTGCTCACGTGGTCACTCCCCTTTG
 TCCTCACGGTGGCAATCCTGGCTGTGGCTCAGGTAGATGGAGACTCCGTGAGTGGCATCTGTTTTGTAGG
 CTACAAGAACTATCGGTACCGTGTGGCTTTGTCTGGCCCAATTGGCCTGGTGTCTATTGTGGGAGGC
 TACTTCTCATCACAGGGTCTGACTCTGTTCTCCATCAAGAGCAACCACCCCTGC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR206991 protein sequence
 Red=Cloning site Green=Tags(s)

MAAGRPVRGPELAPRRLQLLLLVLGGPGRGAALSGNVTGPGPHSASGSSRRNVPVTSPPPPLLSHCGR
 AAHCEPLRYNVLGSLALPYGATTTLLAGDSDSQEEAHGKLVLWSGLRNAPRCWAVIQPLLCAVYMPKCEN
 DRVELPSRTLQATRGPCAIVERERGWDFLRCTPDHFPEGCPNEVQNIKFNSSGQCEAPLVRTDNPKSW
 YEDVEGCGIQCNPLFTEAEHQDMHSYIAAFGAVTGLCTLFTLATFVADWRNSNRYPAVILFYVNACFFV
 GSIWLAQFMDGARREIVCRADGTMRFGEPTSSETLSCVIFVIVVYALMAGVVWFVVLTYAWHTSFKAL
 GTTYQPLSGKTSYFHLTWSLFPVLTVAI LAVAQVDGDSVSGICFVGYKNRYRAGFVLAPIGLVLIVGG
 YFLITGVMTLFSIKSNHPC

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



* The last codon before the Stop codon of the ORF

ACCN: BC048091

ORF Size: 1317 bp

OTI Disclaimer: 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: [BC048091](#), [AAH48091](#)
RefSeq Size: 1747 bp

RefSeq ORF: 1319 bp

Locus ID: 319757

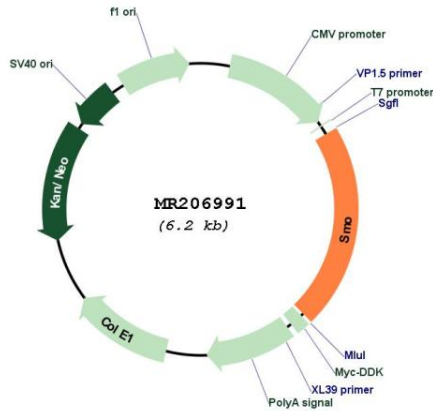
Cytogenetics: 6 12.36 cM

MW: 47.9 kDa

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 MR206991