

Product datasheet for **MR227201**

Shh (NM_009170) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Shh (NM_009170) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Shh
Synonyms:	9530036O11Rik; Dsh; Hhg1; Hx; Hxl3; M100081
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR227201 representing NM_009170
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCTGCTGCTGCTGCCAGATGTTTTCTGGTGATCCTTGCTTCCTCGTGCTGGTGTGCCCGGGCTGG
 CCTGTGGGCCCGCAGGGGGTTTGGAAAGAGGCGCACCCCAAAAAGCTGACCCCTTTAGCCTACAAGCA
 GTTTATCCCAACGTAGCCGAGAAGACCCTAGGGGCCAGCGCAGATATGAAGGGAAGATCACAAAGAAAC
 TCCGAACGATTTAAGGAACTCACCCCAATTACAACCCGACATCATATTTAAGGATGAGGAAAACACGG
 GAGCAGACCGGCTGATGACTCAGAGGTGCAAAGACAAGTTAAATGCCTTGGCCATCTCTGTGATGAACCA
 GTGGCCTGGAGTGAAGCTGCGAGTGACCGAGGGCTGGGATGAGGACGGCCATCATTAGAGGAGTCTCTA
 CACTATGAGGGTCGAGCAGTGGACATCACACGTCGACCGGGACCGCAGCAAGTACGGCATGCTGGCTC
 GCCTGGCTGTGGAAGCAGTTTTCGACTGGGTCTACTATGAATCCAAGCTCACATCCACTGTTCTGTGAA
 AGCAGAGAACTCCGTGGCGGCCAAATCCGGCGGCTGTTTCCCGGGATCCGCCACCGTGCACCTGGAGCAG
 GCGCGCACCAAGCTGGTGAAGGACTTACGTCCCGGAGACCGCGTCTGGCGGCTGACGACCAAGGCGCGC
 TGCTGTACAGCGACTTCTCACTTCTGGACCGCAGCAAGGCGCCAAGAAGGTCTTCTACGTGATCGA
 GACGCTGGAGCCGCGGAGCGCCTGCTGCTCACCGCCGCGCACCTGCTCTTCGTGGCGCCGACAAACGAC
 TCGGGGCCACGCCCGGGCCAAGCGCGCTCTTTGCCAGCCGCGTGCGCCCGGGCAGCGCGTGTACGTGG
 TGGCTGAACGCGCGGGGACCGCGGCTGCTGCCCGCGCGGTGCACAGCGTGACGCTGCGAGAGGAGGA
 GGCGGGCGCGTACGCGCGCTCACGGCGCACGGCACCATTTCTCATCAACCGGGTCTCGCCTCGTGTAC
 CCTGTCTCGAGGACACAGCTGGGCACACCGGGCTTCGCGCCTTCCGCTGGCGCACGCGCTGCTGG
 CCGCGCTGGCACCCGCCGACGACGGCGGGGGCGGGGCGAGCATCCCTGCAGCGCAATCTGCAACGGA
 AGCGAGGGGCGCGGAGCCGACTGCGGGCATCCACTGGTACTCGCAGCTGCTCTACCACATTGGCACCTGG
 CTGTTGGACAGCGAGACCATGCATCCCTTGGGAATGGCGGTCAAGTCCAGC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR227201 representing NM_009170
 Red=Cloning site Green=Tags(s)

MLLLLARCFLVILASSLLVCPGLACGPGRGFGKRRHPKLLPLAYKQFIPNVAEKTLGASGRYEGKITRN
 SERFKELTPNYNPDIIIFKDEENTGADRLMTQRCKDKNLALISVMNQWPVKLRVTEGWDEDGHHSEESL
 HYEGRAVDITTSRDRSKYGMRLARLAVEAGFDWVYYESKAHIHCSVKAENSVAAKSGGCFPGSATVHLEQ
 GGTKLVKDLRPGDRVLAADDQGRLLYSDFLTFLDRDEGAKKVFYVIETLEPRERLLLTAHLLFVAPHND
 SGPTPGPSALFASRVPRGQRYVVAERGGDRLLPAAVHSVTLREEEAGAYAPLTAHGTILINRVLASCY
 AVIEEHSWAHRAFAPFRLAHALLAALAPARTDGGGGGSIIPAAQSATEARGAEPAGIHWYSQLLYHIGTW
 LLDSETMHPLGMVAVKSS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:


ACCN: NM_009170

ORF Size: 1311 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).

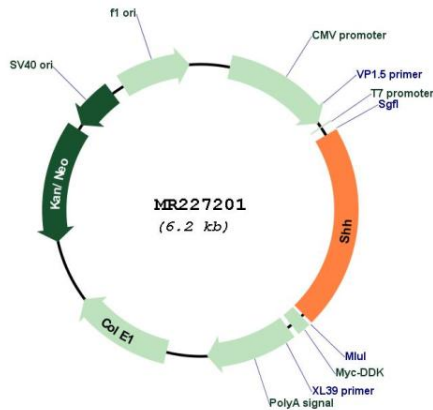
- Reconstitution Method:**
1. Centrifuge at 5,000xg for 5min.
 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
 3. Close the tube and incubate for 10 minutes at room temperature.
 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the 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_009170.3, NP_033196.1](#)

RefSeq Size: 2727 bp
RefSeq ORF: 1314 bp
Locus ID: 20423
UniProt ID: [Q62226](#)
Cytogenetics: 5 14.39 cM
MW: 48.2 kDa

Gene Summary: Sonic hedgehog protein: The C-terminal part of the sonic hedgehog protein precursor displays an autoproteolysis and a cholesterol transferase activity (PubMed:8824192, PubMed:7891723). Both activities result in the cleavage of the full-length protein into two parts (ShhN and ShhC) followed by the covalent attachment of a cholesterol moiety to the C-terminal of the newly generated ShhN (PubMed:8824192). Both activities occur in the reticulum endoplasmic (PubMed:21357747). Once cleaved, ShhC is degraded in the endoplasmic reticulum (PubMed:21357747).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR227201