

Product datasheet for MC224602

Gemin5 (NM_001166670) Mouse Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Gemin5 (NM_001166670) Mouse Untagged Clone
Tag: Tag Free
Symbol: Gemin5
Synonyms: AA407055; AA407208; AI451603; BB194447; C330013N08
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
Fully Sequenced ORF: >MC224602 representing NM_001166670
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGAAGCCGGAGCCGGACGCTGCCGCCGTCCCCAACTGGTACTGCTCAGCTGCAGCGACGCGGGCC
 CCGGAGGCATCTTTGGCTTCGCTGCGCGGACCTCCGTCTTCTCGTCCGCGTGGTCCGGTCCGGGCGC
 GAGCCCAGGGGCGCCCCGTTTCGAGTGGTAGGAGAGTTGGTGGGACACACTGAAAGAGTATCTGGTTTC
 ACTTTTTCTCATACCCTGGACAATACAACCTCTGTGCCACCAGCTCAGACGATGGAAGTGAAGGTTT
 GGGATGTAGAGACCAAGACTGTAGTGACAGAACACACTCCATCAGCATAACAATATCAGCACTGCATTG
 GTCTCCGACAGTTAAGGACTTAATAGTCTCTGGGGATGAAAAAGGAGTCGTTTTCTGTTACTGGCTTAAC
 AGAAATGACAGCCAGCACCTCTTCACAGAGCCAGGACCATATCTGTCTGACGTGTTACCTCATCACG
 AAAATCTAGTAGCCATTGGCTACAAAGATGGCATAGTGGTTATCATTGACATCAGTAAAAAGGGAGAAGT
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 TGCTTATCCATCAGCCAAGAGGAAAACCTGGAACCTGACATCCCAATGGGAAGCTTATAGCAGAAACCC
 CCATCACAAAAGGCTGCTACTTAGCCACAGGAAGCAAAGATCAGACCATTGCAATCTGGAGCTGTTCCCG
 CGGCCGGGTGTAATGGTTTTGAAATTGCCCTTCTGAAGAGAAGAAGTGGGGGTGGACCCAACAGTT
 AAAGAACGGCTTTGGTTGACACTTCATTGGCCTAAGAACCAACACACAGCTGGTATCCAGTTGTTTTG
 GAGGTGAGCTGCTGCTATGGGACCTCACCCAGTCATGGAGGCGGAAGTACACGCTCTTCAGCACCTCAGC
 AGAAGGGCACAATCATTCCAGAATTGTCTTCAATCTGTGTTCTCTGAAGACTGAAGATGGCAAGCAGCTG
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 TGGCAAGGAGTCAAGTCCAAGGTCACAGCGCTATGCTGGCACCCAAACAAGGAAGGCTGCTTAGCCTTCG
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 GACAGGCCTTCCCTCACCTGTACAGCTGTGGAGGGGAAGGCGTTGTGCTACAGCATAACCCCTGGAAGC



TCAGTGGAGAGGCCTTCGACATCAACAACTCGTGAGGGACACCAACTCCATTAGATACAACTGCCCGT
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 ATATTCCAAGTCCCCAATTGAGGCTGTGTGCACCATCCAGCAGCACCACAAGCTTGTGAACGCCATAG
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 CATCTACGTGCACAACCTGAAAGCAGTCTAGAAAAGCAATCCTGAGTCTCCAATAACCATCACAGAGCCC
 TACCGCACCCCTCTCGGGGCACACAGCCAAGATTACCAGTCTGGCATGGAGCCACATCATGACGGGAAGGC
 TGGTATCTGCTTGTACGATGGCAGAGCTCAGGTGTGGGATGCCCTCCGGGAAGAACCTTTGTTCAATT
 CCGAGGCATCGAGGCCGGCTGCTATGTGTCGCGTGGTCCCAGTGGATCCAGAATGCATCTACTCAGGT
 GCAGATGACTTCTGTGTCTACAGGTGGCTGACTTCCATGCAGGACCATTCCCGCCCTCTCAAGGGAAAA
 AATGTATTGAACTAGAGAAAAACGACTCTCTCAATTTAAGCCAAAGCTTAAAAAGAAGAAAAACCTAC
 CTTGCGACTGCCTGTAAGCAGGATTCATCCGTTGGCAATGAAGATGAGAGTGTAAAGGAGAAGCTGGA
 CCTGCTGAGAACGGCTTGTGCGACCAGGATGGTGAAGGAGGAAGCCAGGAGCCAGAGCTGCCTCCCTCTC
 CTGTAGTTTGTGTAGAACCTGTTTCTGTACTGACATTTGCTCAGGCTTTGAAAAGTCAAAGTCACTGT
 TAGTAGCAAAGCCACCTCACTGAAAAAGGAGCCAGCTAAAGAGAAACCAGAAGCCTTGCTCAAGAAGAGG
 AAGGCTCGCTCCATGCTCCCTCTGAGCACCAGCTTAGACCACAGTCCAAAGAGGAGCTCCATCGAGACT
 GCTTGGTACTAGCAACTGCAACACACGCCAAAGCAGAGCTAAATGAAGATGTGTCTGCCGACCTTGAGGA
 ACGATTCCAATTGGGCCTTTTACAGACAGGGCTACTCTATACAGGATGATGAAAACAGAAGGGAAAGGT
 CACTTGGAAAAGTGGCCACCCGAGCTTTTTACCAGCTCATGCTCTGAAAAGGAGATCTGAAGGGTGTTC
 TCCAGGCTGCAGCAGAGAGAGGGCAGCTGACAGACAGTCTCGTGGCTGTGGCACCAGTGGCTGGCTACAG
 TGTATGGCTGTGGGCTGTGGAAGCCTTTGCCAAGCAGCTGTGTTCCAGGACCAGTACGTCAAGGCTGCC
 TCTTATCTGCTATCCATCCAAAAGTGTACGAAGCTGTGGAACCTCTCAAGTCAAACATCTCTACAGAG
 AAGCTATTGCAGTTGCCAAGGCTCGCTGCGCCCTGAGGACCCTGTTCTGAAGGAACTATACCTCAGCTG
 GGGTCCATCCTGGAGAGAGATGGCCACTATGCTATTGCAGCCAAGTGTACTTAGGACCCTTCCGCC
 TATGATGCAGCCAAAGTTCTGGCCAGAAAAGGAGATGCAGCCTCACTTAGAACAGCTGCAGAGCTGGCTG
 CCATAGCAGGAGAACATGAGCTGGCTGCTTCCCTGGCTCTTAGATGTGCCAAGAGCTGCTTCTGATGAA
 GAACTGGGTGGTGCACAAGAAGCATTGGGACTGCATGAAAGCCTGCAGGGCCAGAGACTGGTCTTCTGC
 CTCCTTGAACCTTATGCCGGCACCTGGAGGAAAAACAGCCTCTAGAGGTGAGAGGCCCTCTTCCATTT
 ACCACCAGTGGGCCACAGGTTCTGAGGGAACCTTGGTGCAGAGAGTAACCGGTGTGTGGCGCAGCGCCTT
 CAGTGTGGACACCCCGGAGCAGTGTGAGCCGCTTACAGAAGCTGCAGGATGTCAAGTACCCATCAGCA
 ACAAGTAACTCCCTTACAGACAGCTGCTGCTTATGTCTGCCATGACCTGACCTTGCCAATGCTGAGCC
 AGCAGGCTGCTGCCTGGGAGGAGCAGTGCCTGCTGCTGCAGGCTGTGTTCCGGAGCTATACCTCAGG
 GAACCTTACCCTCATGCAGGAAATCTACTCAGCCTTTCTCCAGGTGGCTGTGACCACCTACGAGACAAA
 CTGGGTGACCTCTCTCCTGCCATGGCAGCTTACAAAAGCTTAGAGGCCTTTTGTATTTATGGGCAACTGT
 ATGAAGTCTGGTGGTCTGCTGCGGGCCTGGCCCTGAGTCAAGCGTCTGGGTGTTGTGAGCTGAAAGCAC
 GGTCTCTGATAAACAGAGCAAGCCAGAGGACAGTGCCAGTGTGAGGACATGGAACAGCCTCCAGGCCCG
 GGCCCGAGGCTCAGTGCAGAGAGTGAAGCTTGTGAGTGCCTGCAAGGAGCTTTTCTCAGAACGGCATG
 CCAGCCTGCAGACCTCCAGAGGACTGTAGCCGAAGTCCAAGAGACACTGGCAGAAATGATCCGCCAGCA
 CAAAAGAGTCACTCTGCAAGGCCACAACAAATGGTCCCAGCAGAGATGAACCCAGCAGAGATGAACCC
 AGCCAGGAAGCAGAGCGGCTCCTTCTCAGCCTCCGAGCCCAACAGAAGAAAGAAATGCACCAGTGTCTC
 TCCCTGAACTAACAGAAAGGCTCACAGAGGCAAAATGAGAGGATAGCAGAGTTTCCAGAGAGTGTAAAGGC
 CTGGCCCTTTCCAGATGTGCTGGAGTGTGCTCGTCTTGTTCATTGGGTCCAGTGTCTGACGCT
 GTGGACCCTGAGATGCAGCAACAGGCCAGGAGCTCCTTACAAGTATGGGCACACTCGAGCTTACAGAA
 GACTGCCAGAGTCGGCACACGTGA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MIuI
ACCN: NM_001166670
Insert Size: 4506 bp

OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
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:	<ol style="list-style-type: none">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_001166670.1 , NP_001160142.1
RefSeq Size:	6223 bp
RefSeq ORF:	4506 bp
Locus ID:	216766
UniProt ID:	Q8BX17
Cytogenetics:	11 B1.3
Gene Summary:	<p>Required for the assembly of the SMN complex that plays a catalyst role in the assembly of small nuclear ribonucleoproteins (snRNPs), the building blocks of the spliceosome. Thereby, plays an important role in the splicing of cellular pre-mRNAs. Most spliceosomal snRNPs contain a common set of Sm proteins SNRPB, SNRPD1, SNRPD2, SNRPD3, SNRPE, SNRPF and SNRPG that assemble in a heptameric protein ring on the Sm site of the small nuclear RNA to form the core snRNP. In the cytosol, the Sm proteins SNRPD1, SNRPD2, SNRPE, SNRPF and SNRPG are trapped in an inactive 6S pICln-Sm complex by the chaperone CLNS1A that controls the assembly of the core snRNP. Dissociation by the SMN complex of CLNS1A from the trapped Sm proteins and their transfer to an SMN-Sm complex triggers the assembly of core snRNPs and their transport to the nucleus. GEMIN5 acts as the snRNA-binding protein of the SMN complex. Binds to the 7-methylguanosine cap of RNA molecules (By similarity). Binds to the 3' UTR of SMN1 mRNA and regulates its translation; does not affect mRNA stability (PubMed:25911097). May play a role in the regulation of protein synthesis via its interaction with ribosomes (By similarity).[UniProtKB/Swiss-Prot Function]</p> <p>Transcript Variant: This variant (3) uses alternate in-frame splice junctions at the 5' ends of two different exons compared to variant 1. The resulting isoform (3) has the same N- and C-termini but is 2 aa shorter compared to isoform 1.</p>