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Product datasheet for MC224604

Gemin5 (NM_172558) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Gemin5 (NM_172558) 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:	>MC224604 representing NM_172558 Red=Cloning site Blue=ORF Orange=Stop codon TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC GCCGCGATCGCC ATGAAGCCGGAGCCGCGGACGCTGCCGCCGTCCCCCAACTGGTACTGCTCACGCTGCAGCGACGCGGCGC CCGGAGGCATCTTTGGCTTCGCTGCGCGGACCTCCGTCTTCCTCGTCCGCGTGGGTCCGGGTGCGGGCGC GAGCCCAGGGGCGCCCCCGTTTCGAGTGGTAGGAGAGTTGGTGGGACACACTGAAAGAGTATCTGGTTTC ACTTTTTCTCATCACCCTGGACAATACAACCTCTGTGCCACCAGCTCAGACGATGGAACTGTGAAGGTTT GGGATGTAGAGACCAAGACTGTAGTGACAGAACACACACTCCATCAGCATACAATATCAGCACTGCATTG GTCTCCGACAGTTAAGGACTTAATAGTCTCTGGGGATGAAAAAGGAGTCGTTTTCTGTTACTGGCTTAAC AGAAATGACAGCCAGCACCTCTTCACAGAGCCCAGGACCATATTCTGTCTGACGTGTTCACCTCATCACG AAAATCTAGTAGCCATTGGCTACAAAGATGGCATAGTGGTTATCATTGACATCAGTAAAAAGGGAGAAGT TATTCACAGACTTCGAGGCCACGATGACGAGATCCACTCCATAGCCTGGTGTCCTCTGTCTGGTGAAGAC TGCTTATCCATCAGCCAAGAGGAAAACTCGGAAGAACCTGACATTCCCAATGGGAAGCTTATAGCAGAAA CCCCCATCACAAAAGGCTGCTACTTAGCCACAGGAAGCAAAGATCAGACCATTCGAATCTGGAGCTGTTC CCGCGGCCGGGGTGTAATGGTTTTGAAATTGCCCTTCCTGAAGAGAAGAAGTGGGGGTGTGGACCCAACA GTTAAAGAACGGCTTTGGTTGACACTTCATTGGCCTAAGAACCAACCAACACAGCTGGTATCCAGTTGTT TTGGAGGTGAGCTGCTGCTATGGGACCTCACCCAGTCATGGAGGCGGAAGTACACGCTCTTCAGCACCTC AGCAGAAGGGCACAATCATTCCAGAATTGTCTTCAATCTGTGTTCTCTGAAGACTGAAGATGGCAAGCAG CTGCTACTGTCCACATCCATGGATAGAGATGTAAAATGTTGGGACATGGCCACCCTGGAGTGTTGCTGGA CATTGCCTTCTCTTGGAGGTTTTGCCTACAGCCTGGCCTTTTCTCCTGTGGACGTGGGCTCCCTGGCCAT AGGTGTTGGGGACGGCATGATCCGGGTGTGGAATACACTCTCCATAAAGAACAACTACGACGTGAAAAAC TTCTGGCAAGGAGTCAAGTCCAAGGTCACAGCGCTATGCTGGCACCCAAACAAGGAAGGCTGCTTAGCCT TCGGGACCGATGACGGAAAAGTGGGATTGTATGACACCTGCTCCAACAAACCTCCACAGATTTCAAGCAC GTATCATAAGAAGACCGTGTATAGGTTGGCTTGGGGGCCACCAGTCCCCCCCATGTCACTTGGAGGGGAA GGAGACAGGCCTTCCCTCACCTTGTACAGCTGTGGAGGGGAAGGCGTTGTGCTACAGCATAACCCCTGGA

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ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI

ACCN: NM_172558

Insert Size: 4509 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:
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_172558.3, NP_766146.2

RefSeq Size: 6226 bp

RefSeq ORF: 4509 bp

Locus ID: 216766

UniProt ID: Q8BX17

Cytogenetics: 11 B1.3

Gene Summary: 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]
Transcript Variant: This variant (2) uses an alternate in-frame splice junction at the 5' end of an exon compared to variant 1. The resulting isoform (2) has the same N- and C-termini but is 1 aa shorter compared to isoform 1.