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Product datasheet for MC225602

Smn1 (NM_001252629) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Smn1 (NM_001252629) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Smn1
Synonyms:	AI849087; Gemin1; Smn
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
Fully Sequenced ORF:	>MC225602 representing NM_001252629 Red=Cloning site Blue=ORF Orange=Stop codon TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC GCCGCGATCGCC ATGCCAGGGTCAGGATTAGGACCAGGAAAGCCAGGTCTAAAATTCAACGGCCCGCCGCCGCCGCCTCCAC TACCCCCTCCCCCCTTCCTGCCGTGCTGGATGCCCCCGTTCCCTTCAGGACCACCAATAATCCCGCCACC CCCTCCCATCTCTCCCGACTGTCTGGATGACACTGATGCCCTGGGCAGTATGCTAATCTCTTGGTACATG AGTGGCTACCACACTGGCTACTATATGGGTTTCAGACAAAATAAAAAAGAAGGAAAGTGCTCACATACAA ATTAA ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT ACAAGGATGACGACGATAAGGTTTAA
Restriction Sites:	SgfI-MluI
ACCN:	NM_001252629
Insert Size:	285 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).
OTI Annotation:	Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.

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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_001252629.1, NP_001239558.1
RefSeq Size:	1291 bp
RefSeq ORF:	285 bp
Locus ID:	20595
UniProt ID:	P97801
Cytogenetics:	13 52.99 cM
Gene Summary:	The SMN complex 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. Ensures the correct splicing of U12 intron-containing genes that may be important for normal motor and proprioceptive neurons development. Also required for resolving RNA-DNA hybrids created by RNA polymerase II, that form R-loop in transcription terminal regions, an important step in proper transcription termination. May also play a role in the metabolism of small nucleolar ribonucleoprotein (snoRNPs).[UniProtKB/Swiss-Prot Function] Transcript Variant: This variant (2) has an alternate 5' exon, which results in a downstream AUG start codon, compared to variant 1. The resulting isoform (2) is shorter at the N-terminus, compared to isoform 1.