

## Product datasheet for RC216751

### Gemin 2 (GEMIN2) (NM\_001009182) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Gemin 2 (GEMIN2) (NM_001009182) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GEMIN2
Synonyms:	SIP1; SIP1-delta
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>RC216751 representing NM_001009182 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCCGCGATCGCC

ATGCGCCGAGCGGAAGTGGCTGGTTTAAAACCATGGCGTGGTACCAGCGGAGTCCGCAGTGAAGAGT  
TGATGCCTCGGCTATTGCCGGTAGAGCCTTGCAGCTTGACGGAAGTTTCGATCCCTCGGTACCCCGAG  
GACGCCTCAGGAATACCTGAGGCGGGTCCAGATCGAAGCAGCTCAATGTCCAGATGTTGGTAGCTCAA  
ATTGACCCAAAGAAGTTGAAAAGGAAGCAAAGTGTGAATATTTCTCTTTCAGGATGCCAACCCGCCCTG  
AAGTTATTTCCCAACACTTCAATGGCAACAGCAACAAGTGGCACAGTTTTCAACTGTTGACAGAAATGT  
GAACAAACATAGAAGTCACTGGAATCACAAACAGTTGGATAGTAATGTGACAATGCCAAAATCTGAAGT  
GAAGAAGGCTGGAAGAAATTTGTCTGGGTGAAAAGTTATGTGCTGACGGGGCTGTTGGACCAGCCAAA  
ATGAAAGTCTGGAATAGATTATGTACAAGCAACAGTAACTAGTGTCTTGGAAATATCTGAGTAATTGGTT  
TGGAGAAAGAGACTTTACTCCAGAATTGGGAAGATGGCTTTATGCTTTATTGGCTGTCTGAAAAGCCT  
TTGTTACCTGAGGCTCATTCACTGATTCGGCAGCTTGAAGAAGGTGCTCTGAAGTGAGGCTCTTAGTGG  
ATAGCAAAGATGATGAGAGGGTTCTGCTTTGAATTTATTAATCTGCTTGGTTAGCAGGTATTTGACCA  
ACGTGATTTAGCTGATGAGCCATCT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC216751 representing NM\_001009182  
 Red=Cloning site Green=Tags(s)

MRR AELAGLKTMAWVPAESAVEELMPRLLPVEPCDLTEGFDPSPVPRTPQEYLRRVQIEAAQCPDVVVAQ  
 IDPKKLKRKQSVNLSLGCQPAPEGYSPTLQWQQQVAQFSTVRQNVNKHRSHWKSQLDSNVTMPKSED  
 EEGWKKFCLGEKLCADGAVGPATNESPGIDYVQATVTSVLEYLSNWFGERDFTPELGRWL YALLACLEKP  
 LLPEAHS LIRQLARRCSEVRLLVDSKDDERVPALNLLICLVSR YFDQRDLADEPS

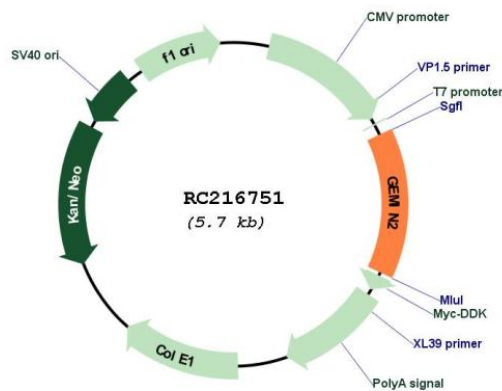
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**Plasmid Map:**



**ACCN:** NM\_001009182  
**ORF Size:** 795 bp

<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_001009182.1</a> , <a href="#">NP_001009182.1</a>
<b>RefSeq Size:</b>	1323 bp
<b>RefSeq ORF:</b>	765 bp
<b>Locus ID:</b>	8487
<b>UniProt ID:</b>	<a href="#">O14893</a>
<b>Cytogenetics:</b>	14q21.1
<b>Protein Families:</b>	Druggable Genome, Stem cell - Pluripotency
<b>MW:</b>	29.8 kDa
<b>Gene Summary:</b>	This gene encodes one of the proteins found in the SMN complex, which consists of several gemin proteins and the protein known as the survival of motor neuron protein. The SMN complex is localized to a subnuclear compartment called gems (gemini of coiled bodies) and is required for assembly of spliceosomal snRNPs and for pre-mRNA splicing. This protein interacts directly with the survival of motor neuron protein and it is required for formation of the SMN complex. A knockout mouse targeting the mouse homolog of this gene exhibited disrupted snRNP assembly and motor neuron degeneration. [provided by RefSeq, Aug 2011]