

## Product datasheet for **RG213444**

### Gemin 8 (GEMIN8) (NM\_017856) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Gemin 8 (GEMIN8) (NM_017856) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Gemin 8
Synonyms:	FAM51A1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG213444 representing NM_017856 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCAGCGGTAAGGCATCAACATCGAAAGCTACCAGGCCTTGGTATTCTCATCCGGTATATGCAAGAT  
ACTGGCAACATTATCATCAAGCAATGGCTTGGATGCAAAGCCATCACAATGCCTACAGGAAGGCCGTGGA  
ATCCTGTTTCAATCTTCCATGGTACTTACCTTCTGCGCTTCTCCCAAAGCTTTACGATAATGAGGCT  
GCGTATCCTCAGTCTTCTATGACCATCATGTGGCCTGGCAGGACTACCCCTGCAGTTCTTCACATTTCA  
GAAGATCTGGGCAGCATCCACGTTACAGCAGTAGGATCCAGGCATCCACAAAAGAAGACCAAGCTTTGTC  
CAAAGAGGAAGAGATGGAGACTGAGTCAGATGCAGAGGTAGAATGTGACCTGAGCAATATGGAAATCACT  
GAAGAGCTCCGCCAGTACTTTGCAGAGACCAGAGGCATAGAGAAGAACGACGGCGGCAGCAGCAGCTGG  
ATGCAGAGCGCCTGGACAGCTATGTGAACGCTGACCACGACCTGTACTGCAACACCCGCCGGTCGGTAGA  
AGCCCCAACTGAGAGGCCTGGTGAGCGGCCAGGCCGAGATGAAGCGTTTGTACGGGGACAGTGTCTGCC  
AAGATCCAAGCCATGGAGGCCGCGTGCAGCTGAGCTTTGACAAGCACTGTGACCGAAAGCAGCCCAAGT  
ACTGGCCGGTCATCCCCCTGAAGTTC

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG213444 representing NM\_017856  
 Red=Cloning site Green=Tags(s)

MAAVKASTSKATRPWYSHPVYARYWQHYHQAMAWMQSHHNAYRKAVE SCFNLPWYLP SALLPQSSYDNEA  
 AYPQSFYDHHVAWQDYPCSSSHFRRSGQHPRYSSRIQASTKEDQAL SKEEEMETESDAEVECDL SNMEIT  
 EELRQYFAETERHREERRRQQQLDAERLDSYVNADHDL YCNTRRSVEAPTERPGERRQAEMKRL YGDSAA  
 KIQAMEAAVQLSFDKHC DRKQPKYWPVIPLKF

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_017856

**ORF Size:** 726 bp

**OTI Disclaimer:** 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\\_017856.3](#)

**RefSeq Size:** 1701 bp

**RefSeq ORF:** 729 bp

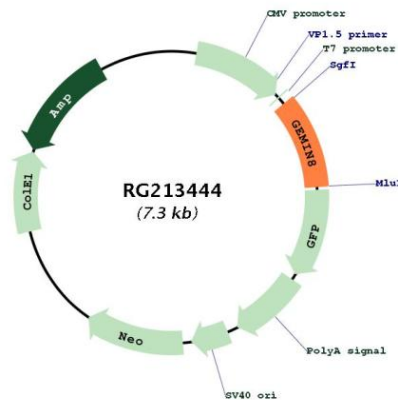
**Locus ID:** 54960

**UniProt ID:** [Q9NWZ8](#)

**Cytogenetics:** Xp22.2

**Gene Summary:** The protein encoded by this gene is part of the SMN complex, which is necessary for spliceosomal snRNP assembly in the cytoplasm and pre-mRNA splicing in the nucleus. The encoded protein binds to both SMN1 and the GEMIN6/GEMIN7 heterodimer, mediating their interaction. This protein is found in nuclear Gemini of Cajal bodies (gems) and in the cytoplasm. Three transcript variants encoding the same protein have been found for this gene. [provided by RefSeq, May 2010]

## Product images:



Circular map for RG213444