

## Product datasheet for **RG230946**

### Gremlin 1 (GREM1) (NM\_001191322) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Gremlin 1 (GREM1) (NM\_001191322) Human Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** Gremlin 1  
**Synonyms:** C15DUPq; CKTSF1B1; CRAC1; CRCS4; DAND2; DRM; DUP15q; GREMLIN; HMPS; HMPS1; IHG-2; MPSH; PIG2  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >RG230946 representing NM\_001191322  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGAGCCGCACAGCCTACACGGTGGGAGCCCTGCATGTGACGGAGCGCAAATACCTGAAGCGAGACTGGT  
 GCAAAACCCAGCCGCTTAAGCAGACCATCCACGAGGAAGGCTGCAACAGTCGCACCATCATCAACCGCTT  
 CTGTTACGGCCAGTGCAACTCTTTCTACATCCCCAGGCACATCCGGAAGGAGGAAGGTTCTTTTCAGTCC  
 TGCTCCTTCTGCAAGCCCAAGAAATTCCTACCATGATGGTCACACTCAACTGCCCTGAACCTACAGCCAC  
 CTACCAAGAAGAAGAGAGTACACAGTGTGAAGCAGTGTGTCGTTGCATATCCATCGATTGGAT

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA

**Protein Sequence:** >RG230946 representing NM\_001191322  
 Red=Cloning site Green=Tags(s)  
 MSRTAYTVGALHVTERKYLKRDWCKTQPLKQTIHEEGCNSRTIINRFCYGCNSFYIPRHIRKEEGSFQS  
 CSFCKPKKFTMMVTLNCPQLPPTKKRVRVKQCRCISIDL

**TRTRPLE** - GFP Tag - V

**Restriction Sites:** Sgfl-MluI



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Cloning Scheme:



ACCN: NM\_001191322

ORF Size: 342 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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\\_001191322.2](#)

**RefSeq Size:** 3928 bp

**RefSeq ORF:** 345 bp

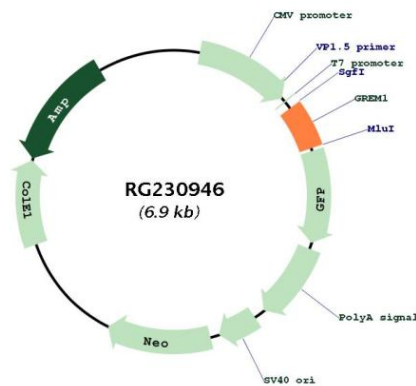
**Locus ID:** 26585

**Cytogenetics:** 15q13.3

**Protein Families:** ES Cell Differentiation/IPS, Secreted Protein

**Gene Summary:** This gene encodes a member of the BMP (bone morphogenic protein) antagonist family. Like BMPs, BMP antagonists contain cystine knots and typically form homo- and heterodimers. The CAN (cerberus and dan) subfamily of BMP antagonists, to which this gene belongs, is characterized by a C-terminal cystine knot with an eight-membered ring. The antagonistic effect of the secreted glycosylated protein encoded by this gene is likely due to its direct binding to BMP proteins. As an antagonist of BMP, this gene may play a role in regulating organogenesis, body patterning, and tissue differentiation. In mouse, this protein has been shown to relay the sonic hedgehog (SHH) signal from the polarizing region to the apical ectodermal ridge during limb bud outgrowth. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2010]

**Product images:**



Circular map for RG230946