

## Product datasheet for RC202808

### Geminin (GMNN) (NM\_015895) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Geminin (GMNN) (NM_015895) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Geminin
Synonyms:	Gem; MGORS6
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC202808 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTGTAAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCCGCGATCGCC

ATGAATCCAGTATGAAGCAGAAACAAGAAGAAATCAAAGAGAATATAAAGAATAGTTCTGTCCCAAGAA  
GAACTCTGAAGATGATTCAGCCTTCTGCATCTGGATCTCTTGTGGAAGAGAAAATGAGCTGTCCGCAGG  
CTTGTCCTGAGGAAACATCGGAATGACCACTTAACATCTACAACCTCCAGCCCTGGGGTTATTGTCCCA  
GAATCTAGTGAAAATAAAATCTTGGAGGAGTCACCCAGGAGTCATTTGATCTTATGATTAAAGAAAATC  
CATCCTCTCAGTATTGGAAGGAAGTGGCAGAAAAACGGAGAAAGGCGCTGTATGAAGCACTTAAGGAAAA  
TGAGAAACTTCATAAAGAAATTGAACAAAAGGACAATGAAATTGCCCGCCTGAAAAAGGAGAATAAAGAA  
CTGGCAGAAAGTAGCAGAACATGTACAGTATATGGCAGAGCTAATAGAGAGACTGAATGGTGAACCTCTGG  
ATAATTTTGAATCACTGGATAATCAGGAATTTGATTCTGAAGAAGAACTGTTGAGGATTCTCTAGTGGA  
AGACTCAGAAATTGGCACGTGTGCTGAAGGAACGTATCTTCCTCTACGGATGCAAAGCCATGTATA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:	>RC202808 protein sequence Red=Cloning site Green=Tags(s)
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MNPSMKQKQEEIKENIKNSSVPRRTLKMIQPSASGSLVGRENELSAGLSKRKHRNDHLTSTTSSPGVIVP  
ESSENKNLGGVTQESFDLMIKENPSSQYWEKAEKRRKALYEALKENEKLHKEIEQKDNEIARLKKENKE  
LAEVAEHVQYMAELIERLNGEPLDNFESLDNQEFDSEETVEDSLVEDSEIGTCAEGTVSSSDAKPCI

TRTRPLEQKLISEEDLAANDILDYKDDDDKV


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**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6145\\_b05.zip](https://cdn.origene.com/chromatograms/mk6145_b05.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_015895

**ORF Size:** 627 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.

**Note:** Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

**RefSeq:** [NM\\_015895.5](#)

**RefSeq Size:** 1275 bp

RefSeq ORF: 630 bp

Locus ID: 51053

UniProt ID: [O75496](#)

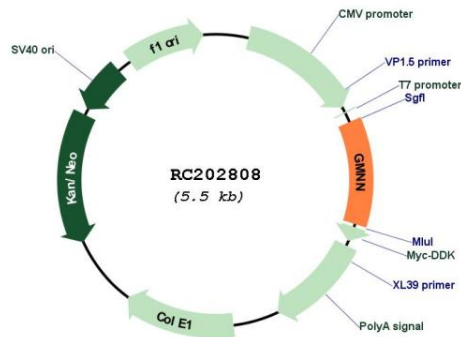
Cytogenetics: 6p22.3

Protein Families: Druggable Genome, Stem cell - Pluripotency

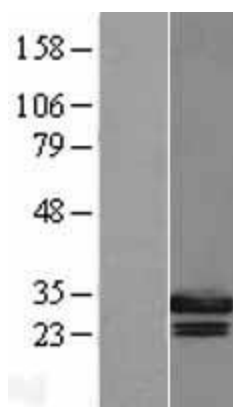
MW: 23.6 kDa

**Gene Summary:** This gene encodes a protein that plays a critical role in cell cycle regulation. The encoded protein inhibits DNA replication by binding to DNA replication factor Cdt1, preventing the incorporation of minichromosome maintenance proteins into the pre-replication complex. The encoded protein is expressed during the S and G2 phases of the cell cycle and is degraded by the anaphase-promoting complex during the metaphase-anaphase transition. Increased expression of this gene may play a role in several malignancies including colon, rectal and breast cancer. Alternatively spliced transcript variants have been observed for this gene, and two pseudogenes of this gene are located on the short arm of chromosome 16. [provided by RefSeq, Oct 2011]

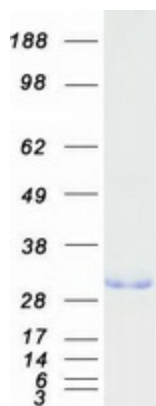
## Product images:



Circular map for RC202808



Western blot validation of overexpression lysate (Cat# [LY402469]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC202808 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified GMNN protein (Cat# [TP302808]). The protein was produced from HEK293T cells transfected with GMNN cDNA clone (Cat# RC202808) using MegaTran 2.0 (Cat# [TT210002]).