

## Product datasheet for **RC205286**

### GEM (NM\_181702) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	GEM (NM_181702) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GEM
Synonyms:	KIR
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC205286 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGACTCTGAATAATGTCACCATGCGCCAGGGCACTGTGGGCATGCAGCCACAGCAGCAGCGCTGGAGCA  
TCCAGCTGATGGCAGGCATCTGATGGTCCAGAAAGACCCACCAGTACAGCCACCGCAACCGCCATTC  
TGCTACCCCTGAGGACCACTGCCGCCGAAGCTGGTCTCTGACTCCACAGACTCAGTCATCTCCTCTGAG  
TCAGGGAACACCTACTACCGAGTGGTGTCTCATAGGGGAGCAGGGGTGGCAAGTCCACTCTGGCCAACA  
TCTTTGCAGGTGTGCATGACAGCATGGACAGCGACTGCGAGGTGTGGGAGAAGATACATATGAACGAAC  
CCTGATGGTTGATGGGAAAGTGAACGATTATACTCCTGGATATGTGGGAAAATAGGGGGAAAATGAA  
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GCTTCGAGAAGGCATCTGAGCTGCGAATCCAGCTCCGCAGGGCCCGCAGACAGAGGACATTCCCATAAAT  
TTTGGTTGGCAACAAAAGTGACTTAGTGCGGTGCCGAGAAGTGTCTGTATCAGAAGGGAGAGCCTGTGCA  
GTGGTGTGGTACTGCAAGTTCATCGAGACCTCTGCAGCTGTCCAGCACACGTGAAGGAGCTGTTTGAGG  
GCATTGTGCGACAGGTGCGCCTTCGGCGGGACAGCAAGGAGAAGAATGAACGGCGCTGGCTACCAGAA  
AAGGAAGGAGAGCATGCCAGGAAAGCCAGGCGCTTCTGGGGCAAGATCGTGGCCAAAAACAACAAGAAAT  
ATGGCCTCAAGCTCAAGTCAAATCCTGCCATGACCTCTGTACTC

**ACGCGT**ACGCGGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC205286 protein sequence  
Red=Cloning site Green=Tags(s)

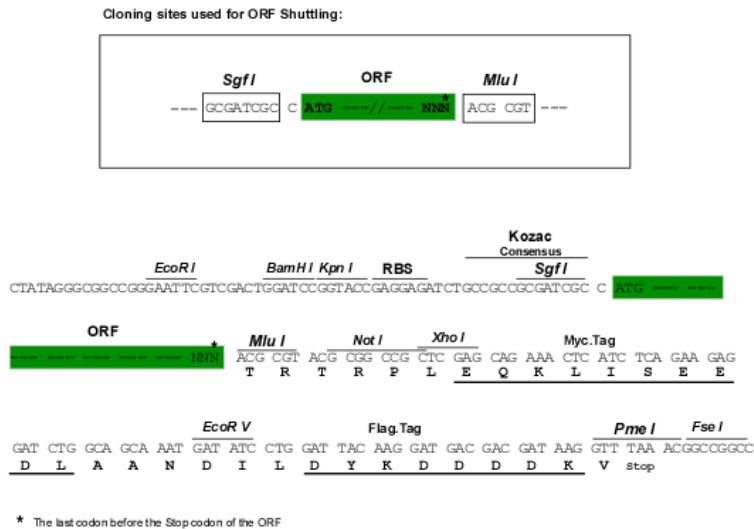
MTLNNVTMRQGTVGMQPQQRWSIPADGRHLMVQKEPHQYSHRNRHSATPEDHCRRSWSSDSTDSVISSE  
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 WLHDHQMVGDAYLIVYSITDRASFEEKASELRIQLRRARQTEDIPILVGNKSDLVRCREVSVSEGRACA  
 VVFDCKFIETSAAVQHNVKELFEGIVRQVRLRRDSKEKNERRLAYQKRKESMPRKARRFWGKIVAKNNKN  
 MAFKLLKSKSCHDLSVL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6314\\_a09.zip](https://cdn.origene.com/chromatograms/mk6314_a09.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_181702

**ORF Size:** 888 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\\_181702.3](#)

**RefSeq Size:** 2080 bp

**RefSeq ORF:** 891 bp

**Locus ID:** 2669

**UniProt ID:** [P55040](#)

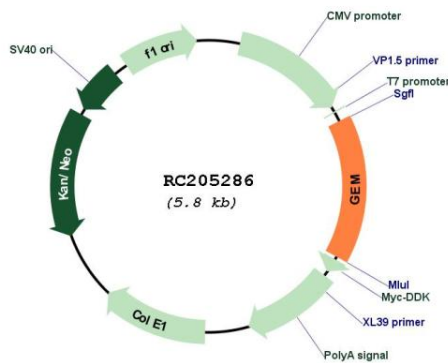
**Cytogenetics:** 8q22.1

**Protein Families:** Druggable Genome

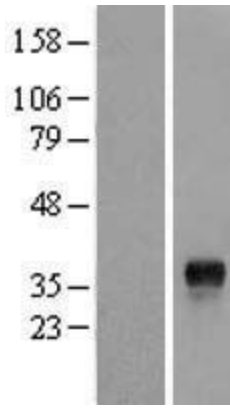
**MW:** 33.9 kDa

**Gene Summary:** The protein encoded by this gene belongs to the RAD/GEM family of GTP-binding proteins. It is associated with the inner face of the plasma membrane and could play a role as a regulatory protein in receptor-mediated signal transduction. Alternative splicing occurs at this locus and two transcript variants encoding the same protein have been identified. [provided by RefSeq, Jul 2008]

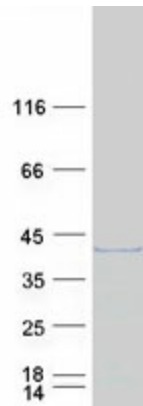
### Product images:



Circular map for RC205286



Western blot validation of overexpression lysate (Cat# [LY405649]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC205286 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified GEM protein (Cat# [TP305286]). The protein was produced from HEK293T cells transfected with GEM cDNA clone (Cat# RC205286) using MegaTran 2.0 (Cat# [TT210002]).