

Product datasheet for **RG223722**

GEM (NM_005261) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GEM (NM_005261) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	GEM
Synonyms:	KIR
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG223722 representing NM_005261 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGACTCTGAATAATGTCACCATGCGCCAGGGCACTGTGGGCATGCAGCCACAGCAGCAGCGCTGGAGCA
TCCAGCTGATGGCAGGCATCTGATGGTCCAGAAAGACCCACCAGTACAGCCACCGCAACCGCCATTC
TGCTACCCCTGAGGACCACTGCCGCCGAAGCTGGTCTCTGACTCCACAGACTCAGTCATCTCCTCTGAG
TCAGGGAACACCTACTACCGAGTGGTGCATAGGGGAGCAGGGGTGGCAAGTCCACTCTGGCCAACA
TCTTTGCAGGTGTGCATGACAGCATGGACAGCGACTGCGAGGTGCTGGGAGAAGATACATATGAACGAAC
CCTGATGGTTGATGGGAAAGTGAACGATTATACTCCTGGATATGTGGGAAAATAGGGGGAAAATGAA
TGGCTCCATGACCACTGCATGCAGTCCGGGACGCATACCTGATTGTCTACTCAATCACAGACCGAGCGA
GCTTCGAGAAGGCATCTGAGCTGCGAATCCAGCTCCGACAGGGCCCGCAGACAGAGGACATTCCCATAAT
TTTGGTTGGCAACAAAAGTGACTTAGTGCGGTGCCGAGAAGTGTCTGTATCAGAAGGGAGAGCCTGTGCA
GTGGTGTGGTACTGCAAGTTCATCGAGACCTCTGCAGCTGTCCAGCACACGTGAAGGAGCTGTTTGAGG
GCATTGTGCGACAGGTGCGCCTTCGGCGGGACAGCAAGGAGAAGAATGAACGGCGGCTGGCTACCAGAA
AAGGAAGGAGAGCATGCCAGGAAAGCCAGGCGCTTCTGGGCAAGATCGTGGCCAAAAACAACAAGAAAT
ATGGCCTCAAGCTCAAGTCAAATCCTGCCATGACCTCTGTACTC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



[View online »](#)

Protein Sequence: >RG223722 representing NM_005261
 Red=Cloning site Green=Tags(s)

MTLNNVTMRQGTVGMQPQQRWSIPADGRHLMVQKEPHQYSHRNRHSATPEDHCRRSWSSDSTDSVISSE
 SGNTYYRVVLIGEQQVGKSTLANIFAGVHDSMDS DCEVLGEDTYERTLMVDGESATIILLDMWENKGENE
 WLHDHCMQVGDAYLIVYSITDRASFEEKASELRIQLRRARQTEDIP IILVGNKSDLVRCREVSVSEGRACA
 VVFDCKFIETSAAVQHNVKELFEGIVRQVRLRRDSKEKNERRLAYQKRKESMPRKARRFWGKIVAKNNKN
 MAFKLLKSKSCHDLSVL

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



ACCN: NM_005261

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.

RefSeq: [NM_005261.4](#)

RefSeq Size: 2205 bp

RefSeq ORF: 891 bp

Locus ID: 2669

UniProt ID: [P55040](#)

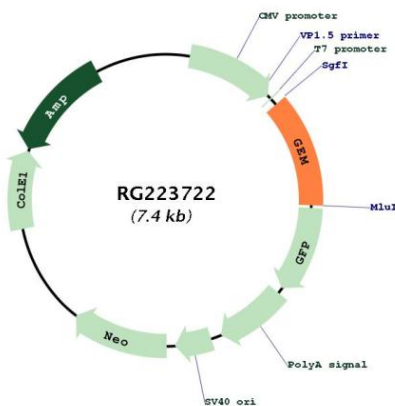
Cytogenetics: 8q22.1

Domains: ras, RAS, RHO, RAB

Protein Families: Druggable Genome

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 RG223722