

Product datasheet for RC223722

GEM (NM_005261) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GEM (NM_005261) 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:	>RC223722 representing NM_005261 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGACTCTGAATAATGTCACCATGCGCCAGGGCACTGTGGGCATGCAGCCACAGCAGCAGCGCTGGAGCA
TCCAGCTGATGGCAGGCATCTGATGGTCCAGAAAGACCCACCAGTACAGCCACCGCAACCGCCATTC
TGCTACCCCTGAGGACCACTGCCGCCAAGCTGGTCTCTGACTCCACAGACTCAGTCATCTCCTCTGAG
TCAGGGAACACCTACTACCGAGTGGTCTCATAGGGGAGCAGGGGTGGCAAGTCCACTCTGGCCAACA
TCTTTGCAGGTGTGCATGACAGCATGGACAGCGACTGCGAGGTGCTGGGAGAAGATACATATGAACGAAC
CCTGATGGTTGATGGGAAAGTGAACGATTATACTCCTGGATATGTGGGAAAATAGGGGGAAAATGAA
TGGCTCCATGACCACTGCATGCAGTTCGGGACGCATACCTGATTGTCTACTCAATCACAGACCGAGCGA
GCTTCGAGAAGGCATCTGAGCTGCGAATCCAGCTCCGCAGGGCCCGCAGACAGAGGACATTCCCAATAAT
TTTGGTTGGCAACAAAAGTGACTTAGTGCGGTGCCGAGAAGTGTCTGTATCAGAAGGGAGAGCCTGTGCA
GTGGTGTGGTACTGCAAGTTCATCGAGACCTCTGCAGCTGTCCAGCACACGTGAAGGAGCTGTTTGAGG
GCATTGTGCGACAGGTGCGCCTTCGGCGGGACAGCAAGGAGAAGAATGAACGGCGCTGGCTACCAGAA
AAGGAAGGAGAGCATGCCAGGAAAGCCAGGCGCTTCTGGGGCAAGATCGTGGCCAAAAACAACAAGAAAT
ATGGCCTCAAGCTCAAGTCAAATCCTGCCATGACCTCTGTACTC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



[View online »](#)

Protein Sequence: >RC223722 representing NM_005261
Red=Cloning site Green=Tags(s)

MTLNNVTMRQGTVGMQPQQRWSIPADGRHLMVQKEPHQYSHRNRHSATPEDHCRRSWSSDSTDSVISSE
 SGNTYYRVVLIGEQQVGKSTLANIFAGVHDSMDSCEVLGEDTYERTLMVDGESATIILLDMWENKGENE
 WLHDHMQVGDAYLIVYSITDRASFEEKASELRIQLRRARQTEDIPILVGNKSDLVRCREVSVSEGRACA
 VVFDCKFIETSAAVQHNVKELFEGIVRQVRLRRDSKEKNERRLAYQKRKESMPRKARRFWGKIVAKNNKN
 MAFKLLKSKSCHDLSVL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6119_c02.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



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

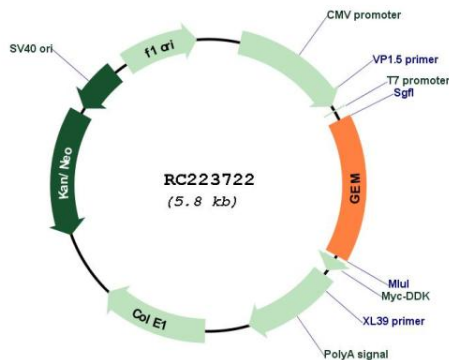
Domains: ras, RAS, RHO, RAB

Protein Families: Druggable Genome

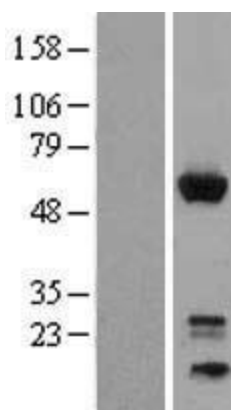
MW: 33.8 kDa

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]

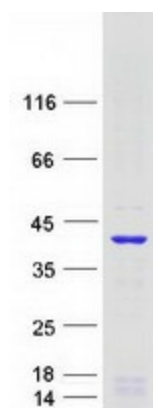
Product images:



Circular map for RC223722



Western blot validation of overexpression lysate (Cat# [LY401618]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC223722 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified GEM protein (Cat# [TP323722]). The protein was produced from HEK293T cells transfected with GEM cDNA clone (Cat# RC223722) using MegaTran 2.0 (Cat# [TT210002]).