

Product datasheet for MR231619

Gak (NM_001282051) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Gak (NM_001282051) Mouse Tagged ORF Clone
Tag: Myc-DDK
Symbol: Gak
Synonyms: D130045N16Rik
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
ORF Nucleotide Sequence: >MR231619 representing NM_001282051
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCACAGGCAGAAACCACCCATCATCCACAGAGATCTCAAGGTTGAAAACCTACTGCTTAGTAACCAGG
 GGACCATTAAGCTGTGTGACTTTGGCAGTGCCACAACCATCTCCCATTATCCTGACTACAGCTGGAGTGC
 CCAGAAGCGAGCCATGGTGGAGGAAGAGATCACAAGGAACACCACCCATGTACAGAACCAGAAATT
 GTAGACCTGTATTCCAACCTCCCATTTGGCGAAAAGCAGGATATCTGGGCACTGGGCTGTATCTTATACC
 TGCTGTGTTTTCCGGCAGCATCCTTTTGAGGATGGAGCAAAACTTCGGATAGTCAATGGGAAGTATCCAT
 TCCTGTGAATGACACTCGTTACACAGTCTTCCATGACCTTATTCGTGCCATGCTAAAGGTCAACCCAGAG
 GAGAGGCTGTCCATTGCTGAAGTGGTCCGACAACCTGCAGGAAATTGCAGCAGCTAGGAATGTGAACCCCA
 AAGCTCCCATCACAGAGCTGCTGGAGCAGAATGGTGGCTATGGGAACTCAGGGCCTCCCGAGCACAAAC
 ACCTTGCGGGGGCACCGTGAACAGCAGTGGAGTTTTGGCTCTGGCAGAGTATGACCAGCCCTACGGTGGG
 TTTCTTGATATTCTGCGGGTGGGACCGAACGGCTCTTCAACCTCAAGGATACTTCTCCAAGGTCA
 TCCAGTCTGTGGCTAACTATGCAAAGGGTGATCTGGACATATCTTACATCACATCCAGGATTGCAGTGAT
 GTCATTTCCAGCAGAAGGTGTGGAGTCTGCAATCAAAAACAATATAGAGGATGTGCGAATGTTTCTGGAT
 GCTAAGCATCCAGGACATTATGCTGTCTACAACCTTTCTCCAAGGATATACCGGGCTTCCAAGTTTCACA
 ACCGGGCTCACTGAGTGTGGCTGGGCAGTCAGACGGGCACCCACATCTCCACAGTTTGTATACTCTATGTAG
 GAGCATGCATGCCTGGCTCCGGGAAGACCACAGGAACGTCTGTGTTGTGCATTGCATGGATGGGAGAGCT
 GCATCTGCTGTGGCAGTCTGTGCATTCTGTGCTTCTGCCGTCTTTCAGCACTGCAGAGGCTGCTGTGT
 ACATGTTCAAGCGCTGCCACCCAGGCATTTGGCCATCCACAAAAGGTACATTGAATATGTATG
 TGACATGGTGGCAGAGGAGCCCATCACGCCCCATAGCAAGCCAATGCTGGTAAAATCTGTTGTCATGACC
 CCCGTGCCACTGTTCAAGCAGAGGAATGGCTGCCACCGTTCTGTGAGGTCTACGTTGGAGAGGAGC
 GTGTCACCACCAGTCGAGGAATATGACAGAATGAAGGAATTTAAAATTGAGGATGGCAAGGCTGTCAT
 CCCCTGGGCGTAACAGTTCAAGGAGACGTGCTCATCATCTACCATGCCAGGGCCACTGGGAGGG
 AGGCTGCAGGCTAAGATGGCGTCCATGAAAATGTTCCAGATCCAGTTCACACTGGGTTCTGTCCTCGAA



[View online »](#)

ACGCAACCACTGTGAAATTTGCAAAATATGACCTGGATGCTTGTGATATTCAAGAGAAGTACCCAGATCT
GTTCCAGGTGAACCTGGAAGTGGAGGTAGAGCCTAGAGACAGGCCAGCCGAGAAGCTCCACCTGGGAG
AACACCAGCCTAAGGGGGTTAAACCCCAAGATCCTCTTTTCCAACAGGGAAGAGCAGCAGGACATTCTGT
CTAAGTTTGGGAAGCCGGAGCTACCCCGCAGCCGGGCTCCACAGCTCAGTATGATGCTGAGGCAGGGTC
TCCGGAGGCTGAGATCACAGAGTCGGACTACCCGACAGCAGCAGTACGGACACCAACCACTTTCTTAC
ACACTGGATTGGCAGGAGAAAAAGAACCAGAGACTGGGTTAGACAATACCTCTCCTAAGGAGAGTCAGT
CTGTCCTGATTGCAGACGGAGATGGAAGTGAAGTATCAGATGAAGAAGAGGCTTCATCCCCAGTGAGGA
GAGGAAACCAGGAGCTGGAGAAGATACACCAAGGCTGGCTGCTGGGACCAACAGCAAGACTTAATATTT
GATGTGGGCATGCTGGCTGCCCCACAGGAGCCTGTACAGCCCAAGAAGGTGTTGATCTCCTGGGGCTAC
ACTCTGAGGGGGACTTAAGGCCTGCTGCCCCCTTACAGGCTTGTGGGTCCCATCTAGCAACACTGACCT
GTTGAGCTGCCTTCTGAACCATCTGATGCTGCTCAAGTAGGGCCTCCTGGTGACCTGCTTGGTGGTGAG
GCTCCACTGCTGCTAGCAAGCCAGTTTCTCCTTGGGCTGCAGAACAACCTACAAGGAAAAGTCCCTG
ACACTGTGGACCCATTTGACCAGTTCCTGCTGTCATCCAACCTCAGACACCCAGCCCTGCTCAAGCCTGA
TCTCTTTGGAGAGTTTCTCAACTCTGACTCTGTAGCTTCTCAACTGCCTTCCCATCCACCCACAGTGCC
CCACCCCATCCTGTAGCACTGCCTTCTGCACCTAGGGGATCTGCCAGCAGAGCCAGCAAGGTAATAG
CTTCATCCAGCCACCCAGATCTGCTAGGAGGATGGGATACGTGGGCTGACACAGCTACACCTGGGCCAGC
CTCCATCCAGTACCAGAAGGTACCCTCTTCTTCTGTCAGGTACCCAGCCCTCCTGGCCCAACCC
AGCCAAACCAAGTCTCAGAACCTTGACCCATTTGCTGATCTCAGTGATCTCAGCTTAGCCTCAAGGCC
TGCTGCTGGACTTCTGCAGGGGGCTTTGTTGGCGCACCAGCCCACTCAAAAGAGCAACAGCCCTG
GCAGGCAAATCGTCCACAGCCCTGGAACCTCATGGACCCCAAGCCAGCCCAAGCCAGCCCTG
GAACAGCTAAGGTCTCACTTCAGTGTGATCGGGGCCGAGAAGAGAGGGGCGTCCGTGTGCCAGCTTTG
CCCAAAAGCCAAAGGTCTCAGAAAATGATTTTGAAGATCTTCTGCCTAATCAAGGCTTCTAAGTCTGA
CAAGAAGGGGCCAAAGACCATGGCAGAGATGCGGAAACAGGAACCTGCCAGAGATACAGACCCACTCAA
TTGAAGCTTTTGGACTGGATTGAAGCAAGGAGAGGAACATTCTGCACTGCTGTCCACTCTGCACACGG
TATTGTGGGATGGGAGAGCCGCTGGACACCTGTGAGTATGGCTGACCTGGTACTCCAGAGCAGGTGAA
GAAGCAGTACCGCGTGCAGTGTGGTAGTGCATCCTGATAAGGCCACAGGGCAGCCGTATGAACAGTAT
GCCAAGATGATCTTCATGGAGCTGAATGATGCATGGTCTGAGTTTAAAACCAGGGCTCGAGGCCCTCT
TC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR231619 representing NM_001282051
 Red=Cloning site Green=Tags(s)

```
MHRQKPPIIHRDLKVENLLL SNQGTIKLCDFGSATTISHYPDYSWSAQKRAMVEEITRNTTPMYRTPEI
VDLYSNFPIGEKQDIWALGCIL YLLCFRQHPFEDGAKLRIVNGKYSIPVNDTRYTVFHDLIRAMLKVNPE
ERLSIAEVVRLQEI AARNVNP KAPITELLEQNGGYGNSGPSRAQPPCGGTVNSSGVLALAEYDQPYGG
FLDILRGGTERLFTNLKDTSSKVIQSVANYAKGDLDISYITSRIA VMSFPAEGVESAIKNNIEDVRMFLD
AKHPGHYAVYNLSPRIYRASKFHNRVTECGWAVRRAPHLHSLYTLCRSMHAWLREDHRNVCVVHCMDGRA
ASAVAVCAFLCFRFLSTAEAAVYMF SMKRCPPGIWPSHKRYIEYVCDMVAEEPITPHSKPMLVKSVMVT
PVPLFSKQRNGCRPFCEVYVGEERVTTTSQEYDRMKEFKIEDGKAVIPLGVTVQGDVLI IYHARATLGG
RLQAKMASMKMFQIQFHTGFVPRNATTVKFAKYDLDACDIQEYKYPDLFQVNLEVEVEPRDRPSREAPPWE
NTSLRGLNPKILFSNREEQDILSKFGKPELPRQPGSTAQYDAEAGSPEAEITESDSPQSSSTDTNHFLH
TLDWQEEKEPETGLDNTSPKESQSVLIADGDGSEVSD EEEASFPSEERKPGAGEDTPRLAAGTKQQDLIF
DVGMLAAPQEPVQPEEGVDLLGLHSEGDLRPAAPLQACGVPSSNTDLLSCLLEPSDAAQVGGPDLLGGE
APLLL ASPVSPLGLQNNLQGKVPDTPDFDQFLLSNSNDTQPCSKPDLFGEFLNSD SVASSTAFPSTHSA
PPPSCST AFLHLGDLPAEPSKVIASSSHPDLLGGWDTWADTATPGPASIPVPEGTLFSSAGHPAPPGNP
SQTQSQNLDPFADLSDLSSSLQGLPAGLPAGGFVGAPAPTQKSNSPWQANRPTAPGTSWTPQAKPAPRAS
EQLRSHFSVIGAREERGVRVPSFAQKPKVSEND FEDLLPNQGFSKSDKKGPKTMAEMRKQELARDTPLK
LKLLDWIEGKERNIRALLSTLHTVLWDGESRWTPVSMADLVTPEQVKQYRRAVLV VHPDKATGQPYEQY
AKMIFMELNDAWSEFENQGSRPLF
```

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

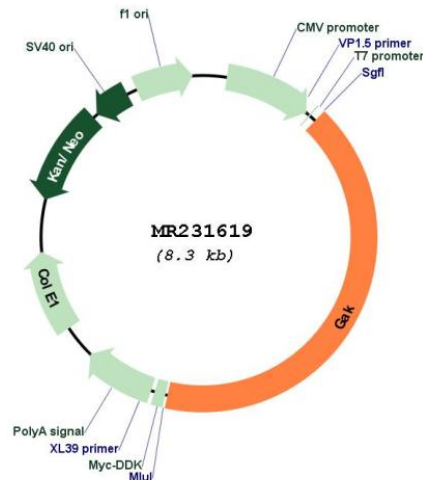
Restriction Sites:

Sgfl-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001282051

ORF Size: 3432 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_001282051.1](#), [NP_001268980.1](#)

RefSeq Size: 4793 bp

RefSeq ORF: 3435 bp

Locus ID: 231580

UniProt ID: [Q99KY4](#)

Cytogenetics: 5 F

MW: 126.5 kDa

Gene Summary: Associates with cyclin G and CDK5. Seems to act as an auxilin homolog that is involved in the uncoating of clathrin-coated vesicles by Hsc70 in non-neuronal cells. Expression oscillates slightly during the cell cycle, peaking at G1 (By similarity).[UniProtKB/Swiss-Prot Function]