

## Product datasheet for MR231575

### Gak (NM\_001282052) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Gak (NM_001282052) 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:	>MR231575 representing NM_001282052 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**GCGATCGCC**

ATGGTGGAGGAAGAGATCACAAGGAACACCACCCATGTACAGAACACCAGAAATTGTAGACCTGTATT  
CCAACCTCCCCATTGGCGAAAAGCAGGATATCTGGGCACTGGGCTGTATCTTATACCTGCTGTGTTCCG  
GCAGCATCCTTTGAGGATGGAGCAAACCTTCGGATAGTCAATGGGAAGTATTCCATTCTGTGAATGAC  
ACTCGTTACACAGTCTTCCATGACCTTATTCGTGCCATGCTAAAGGTCAACCCAGAGGAGAGGCTGTCCA  
TTGCTGAAGTGGTCCGACAACCTGCAGGAAATTGCAGCAGCTAGGAATGTGAACCCCAAAGCTCCCATCAC  
AGAGCTGCTGGAGCAGAAATGGTGGCTATGGGAACTCAGGGCCTCCCGAGCACAACCACCTTGCAGGGGC  
ACCGTGAACAGCAGTGGAGTTTTGGCTCTGGCAGAGTATGACCAGCCCTACGGTGGGTTTCTTGATATTC  
TGCGGGGTGGGACCGAACGGCTTCCCAACCTCAAGGATACTCCTCCAAGGTCATCCAGTCTGTGGC  
TAACTATGCAAAGGGTGATCTGGACATATCTTACATCACATCCAGGATTGCAGTGATGTCATTCCAGCA  
GAAGGTGTGGAGTCTGCAATCAAAAACAATATAGAGGATGTGCGAATGTTTCTGGATGCTAAGCATCCAG  
GACATTATGCTGTCTACAACCTTCTCCAAGGATATACCGGGCTTCCAAGTTTCAACAACCGGGTCACTGA  
GTGTGGCTGGGACGTGACAGCGGCACCACATCTCCACAGTTGTATACTCTATGTAGGAGCATGCATGCC  
TGCTCCGGGAAGACCACAGGAACGTCTGTGTTGTGCATTGCATGGATGGGAGAGCTGCATCTGCTGTGG  
CAGTCTGTGCATTCTGTGCTTCTGCCGCTCTTTCAGCACTGCAGAGGCTGCTGTGTACATGTTCCAGCAT  
GAAGCGCTGCCACCAGGCATTTGGCCATCCCAAAAAGGTACATTGAATATGTATGTGACATGGTGGCA  
GAGGAGCCATCACGCCCATAGCAAGCCAATGCTGGTGAATCTGTTGTCATGACCCCCGTGCCACTGT  
TCAGCAAGCAGAGGAATGGCTGCCGACCGTTCTGTGAGGCTACGTTGGAGAGGAGCGTGTACCACCAC  
GTCGCAGGAATATGACAGAATGAAGGAATTTAAAATTGAGGATGGCAAGGCTGTATCCCCCTGGGCGTA  
ACAGTTCAAGGAGACGTGCTCATCATCATCTACCATGCCAGGGCCACACTGGGAGGGAGGCTGCAGGCTA  
AGATGGCGTCCATGAAAATGTTCCAGATCCAGTCCACACTGGGTTTCGTGCCTCGAAACCGCAACCACTGT  
GAAATTTGCAAAAATGACCTGGATGCTTGTGATATTCAGAGAGAAGTACCAGATCTGTTCCAGGTGAAC  
CTGGAAGTGGAGGTAGAGCCTAGAGACAGGCCAGCCGAGAAGCTCCACCTTGGGAGAACCAGCCTAA



[View online >](#)

```
GGGGGTTAAACCCCAAGATCCTCTTTTCCAACAGGGAAGAGCAGCAGGACATTCTGTCTAAGTTTGGGAA
GCCGGAGCTACCCCGGCAGCCGGGCTCCACAGCTCAGTATGATGCTGAGGCAGGGTCTCCGGAGGCTGAG
ATCACAGAGTCGGACTCACCGCAGAGCAGCAGTACGGACACCAACCCTTTCTTACACACTGGATTGGC
AGGAGGAAAAAGAACCAGAGACTGGGTTAGACAATACCTCTCCTAAGGAGAGTCACTGTCTGCTGATTGC
AGACGGAGATGGAAGTGAAGTATCAGATGAAGAAGAGGCTTATTCCCCAGTGAGGAGAGGAAACCAGGA
GCTGGAGAAGATACACCAAGGCTGGTGTCTGGACCAAACAGCAAGACTTAATATTTGATGTGGGCATGC
TGGCTGCCCCACAGGAGCCTGTACAGCCGAAGAAGGTGTTGATCTCCTGGGGCTACACTCTGAGGGGGA
CTTAAGGCCTGCTGCCCCCTTACAGGCTTGTGGGGTCCCATCTAGCAACACTGACCTGTTGAGCTGCCTT
CTTGAACCATCTGATGCTGCTCAAGTAGGGCTCCTGGTGACCTGCTTGGTGGTGAAGCTCCACTGCTGC
TAGCAAGCCAGTTTCTCCTCTTGGGCTGCAGAACAACCTACAAGGAAAAGTCCCTGACACTGTGGACCC
ATTTGACCAGTTCCTGCTGTATCCAACCTCAGACACCCAGCCCTGCTCCAAGCCTGATCTCTTTGGAGAG
TTTCTCAACTCTGACTCTGTAGTTCCTCAACTGCCTTCCATCCACCCACAGTGCCCCACCCCATCT
GTAGCACTGCCTCCTGCACCTAGGGGATCTGCCAGCAGAGCCAGCAAGGTAATAGCTTATCCAGCCA
CCCAGATCTGCTAGGAGGATGGGATACGTGGGCTGACACAGCTACACTGGGCCAGCCTCCATTCCAGTA
CCAGAAGTACCCTCTTCTCTTCTGAGGTCAACCCAGCCCTCCTGGCCCAACCCAGCCAAACCAAGT
CTCAGAACCTTGACCCATTTGCTGATCTCAGTATCTCAGCTCTAGCCTCAAGGCTGCCTGCTGGACT
TCTGCAGGGGGCTTTGTTGGCGCACAGCCCCCACTCAAAGAGCAACAGCCCTTGGCAGGCAAAATCGT
CCCACAGCCCCTGGAACCTCATGGACCCCCAGGCCAAGCCAGCCCCAGAGCCTCTGAACAGCTAAGGT
CTCACTTCAGTGTGATCGGGGCCGAGAAGAGAGGGGCGTCCGTGTGCCAGCTTTGCCAAAAGCCAAA
GGTCTCAGAAAATGATTTTGAAGATCTTCTGCCTAATCAAGGCTTCTCTAAGTCTGACAAGAAGGGGCCA
AAGACCATGGCAGAGATGCGGAAACAGGAACCTTGCAGAGATACAGACCCACTCAAATGAAGCTTTTGG
ACTGGATTGAAGCAAGGAGAGGAACATTCGTGCACTGCTGTCCACTCTGCACACGGTATTGTGGGATGG
GGAGACCGCTGGACACCTGTGAGTATGGCTGACCTGGTACTCCAGAGCAGGTGAAGAAGCAGTACCCG
CGTGCAAGTGTGGTAGTGCATCCTGATAAGGCCACAGGGCAGCCGTATGAACAGTATGCCAAGATGATCT
TCATGGAGCTGAATGATGCATGGTCTGAGTTTAAAACCAGGGCTCGAGGCCCTCTTC
```

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>MR231575 representing NM\_001282052  
Red=Cloning site Green=Tags(s)

```
MVEEIEITRNTTPMYRTPEIVDLYSNFPDIGEKQDIWALGCILYLLCFRQHPFEDGAKLRIVNGKYSIPVND
TRYTVFHDLIRAMLKVNPEERLSIAEVVRQLQEIAAARNVNPKAPITELLEQNGGYGNSGPSRAQPPCGG
TVNSSGLVALAEYDQPYGGFLDILRGGTERLFTNLKDTSSKVIQSVANYAKGDLDISYITSRIVMSFPA
EGVESAIKNNIEDVRMFLDAKHPGHYAVYNLSPRIYRASKFHNRVTECGWAVRRAPHLHSLYTLCRSMHA
WLREDHRNVCVVHCMDGRAASAVAVCAFLCFCLFSTAEAAVYMF SMKRCPPGIWPSHKRYIEYVCDMVA
EEPITPHSKPMLVKSVMTPVPLFSKQRNGCRPFCEVYVGEERVTTTSQEYDRMKEFKIEDGKAVIPLGV
TVQGDVLI I IYHARATLGGRLQAKMASMKMFQIQFHTGFVPRNATTVKFAKYDLDACDIQEKYPDLFQVN
LEVEVEPRDRPSREAPPWENTSLRGLNPKILFSNREEQQDILSKFGKPELPRQPGSTAQYDAEAGSPEAE
ITESDSPQSSSTDNHLHLTDWQEEKEPETGLDNTSPKESQSVLIADGDGSEVSDEEEASFSEERKPG
AGEDTPRLAAGTKQQDLIFDVGMLAAPQEPVQPEEGVDLLGLHSEGLRPAAPLQACGVPSSNTDLLSCL
LEPSDAAQVGGPDLGGEAPLLASPVSPLGLQNNLQKVPDTPDFDQFLSSNSDTQPCSKPDLFGE
FLNSDSVASSTAFPSTHSAPPPSCSTAFLLHLGDLPAEPSKVIASSHPDLLGGWDTWADTATPGPASIPV
PEGTLFSSAGHPAPPGNPSQTKSQNLDPFADLSDLSSSLQGLPAGLPAGGFVGAPAPTQKSNSPWQANR
PTAPGTSWTPQAKPAPRASEQLRSHFSVIGAREERGVRVPSFAQKPKVSENFEDLLPNQGF SKSDKKG
KMTAEMRKQELARDTDPLKLLLDWIEGKERNIRALLSTLHTVLWDGESRWTPVSMADLVTPEQVKKQYR
RAVLVVHPDKATGQPYEQYAKMIFMELNDAWSEFENQGSRPLF
```

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

**Restriction Sites:**

SgfI-MluI

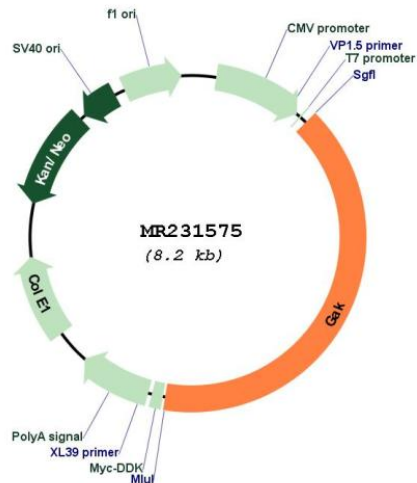
## Cloning Scheme:

Cloning sites used for ORF Shutting:



\* The last codon before the Stop codon of the ORF

## Plasmid Map:



ACCN:

NM\_001282052

ORF Size:

3279 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.

<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<u>NM_001282052.1, NP_001268981.1</u>
<b>RefSeq Size:</b>	4655 bp
<b>RefSeq ORF:</b>	3282 bp
<b>Locus ID:</b>	231580
<b>UniProt ID:</b>	<u>Q99KY4</u>
<b>Cytogenetics:</b>	5 F
<b>MW:</b>	120.6 kDa
<b>Gene Summary:</b>	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]