

Product datasheet for **RC226116**

GIT2 (NM_001135214) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GIT2 (NM_001135214) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GIT2
Synonyms:	CAT-2; CAT2; PKL
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide
Sequence:

>RC226116 representing NM_001135214
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGTCSAAACGGCTCCGGAGCAGCGAGGTGTCGCTGACTGCAGCGGCCGGATCCTTCCTGGGCATCAG
TAAATAGGGGAACGTTTTTATGTGATGAGTGTGCAGTGTCCATCGGAGTCTAGGGCGCCATATCTCCA
AGTGAGGCATCTGAAACACACACCGTGGCCTCCAACACTGCTTCAGATGTTGAGACCTTGATAATAAC
GGTGCTAACTCTATATGGGAGCATTCTTTGCTGGACCCTGCGTCTATTATGAGTGAAGACGTAAAGCTA
ATCCACAGGATAAAGTACATCCCAATAAAGCGGAATTCATCAGAGCCAAGTATCAGATGTTAGCGTTCGT
CCATCGCTTGCCCTGCCGGGATGACGATAGTGTGACTGCCAAAGATCTTAGCAAGCAACTCCATTCGAGC
GTGAGAACAGGGAATCTTGAAACCTGTTGAGACTGTTATCTTTAGGAGCACAAGCCAATCTTTTCATC
CTGAAAAAGAAACACCCCACTCCATGTTGCCCTCAAAGCAGGGCAGATTTTACAGGCTGAATTATTGGC
AGTATATGGAGCAGACCCAGGCACACAGGATTCTAGTGGGAAAACCTCCGTTGATTATGCAAGGCAAGGA
GGGCACCATGAGCTGGCAGAGCGCTCGTGAAAATACAGTATGAGCTAACGGACAGACTAGCCTTCTATC
TCTGTGGCAGGAAACCAGATCACAAAAATGGACAGCACTTTATAAATACCTCAAATGGCAGACAGCAGCCT
GGATTTGTCTGAATTGGCAAAAGCTGCTAAGAAGAACTTCAATCTTAAGTAATCATTTGTTTGAAGAA
CTTGCCATGGATGTGTACGATGAAGTTGACAGGCGAGAGACGGATGCAGTCTGGCTTGCCACGAAAACC
ACAGCGCCTGGTAACCGAGACAACGGTCTGCCCTTTCTCCGGTCAATCTGAGTACTCATCAACACG
AAATCAGGGCAGACAGAAGTTAGCTCGGTTCAACGCCATGAGTTTCCACGCTGGTCATTGACATTCTC
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AAACCATCAATAACCGACACAGCCTTGAGAGTCAAGACAACGATCAGCCGACTATGACAGCGTGGCAGTC
AGACGAAGACACAGATTTGGAAACCACTGCAAGCAAAACAAACCGCAGAGAAGGCCTAGATTCAGATTTA
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TACAGCAGCTAATGAAGGTGAATAACAACCTTGAAGTACGAGCTGAGAATTATGCAGAAAAAGCTTCAAAC
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GAGTACACAGACACTTCCAACCACTCTTCTTAAAGAGACGTCCGTCTGCCCGGGCAGTAGGCCCATGT
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CAGGATGAGACTCCAGCCCTTCCCAGCAGCATCCAGGCTGGAGAAGCAGAACAGCACACCTGAGAGT
GACTACGACAACACTCCCAACGACATGGAGCCAGATGGCATGGGGTCAAGCCGAAAGGGACGGCAAAGAA
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GCCCAAGAAAAATAACATGACAGTTATATCCCTGCTCAGAGAGGATACAGTAGCTGTTACAGAAATGG
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GTCACGCAGCAGGTATCCAGTGTGCGTACGACATCGCCAAGGCTGCCAAGCAGCTGTTACCATCACCA
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ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC226116 representing NM_001135214
Red=Cloning site Green=Tags(s)

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MSKRLRSSEVCADCSGPDPSWASVNRGTFLCDECCSVHRSLGRHISQVRHLKHTPWPTLLQMVETLYNN
GANSIWEHSLLDPASIMSGRRKANPQDKVHPNKAEIFIRAKYQMLAFVHRLPCRDDDSVTAKDLSKQLHSS
VRTGNLETCLRLLSLGAQANFFHPEKGNTPLVASKAGQILQAE LLAVYGADPGTQDSSGKTPVDYARQG
GHHELAERLVEIQYELTDRLAFYLCGRKPDHKNQHFIIIPQADSSLDLSELAKAAKKLLQSLSNHLFEE
LAMDVYDEVDRRETDVWLATQNHSA LVTETTVVFPVNP EYSSTRNQGRQKLARFNAHEFATLVIDIL
SDAKRRQQGSSLSGSKDNVELILKTINNQH SVESQDNDQPDYDSVASDEDTDLETTASKTNRQKSLDSDL
SDGPVTVQEFMEVKNALVASEAKIQQLMKVNNLSDELRI MQKQLQLQSENSNLRKQATTNVYQVQTGS
EYTDTSNHSSLRKRRSARGSRPMSMYETGSGQKPYLPMGEASRP EESRMRLQPPFAHASRLEKQNSTPES
DYDNTPNMPEPDGMGSSRKRQRSMVWPGDGLVPDTAEPHVAPSPTLPSTEDVIRKTEQITKNIQELLRA
AQENKHDYSIPCSERIHVAVTEMAALFPKKPKSDMVRTSLRLLTSSAYRLQSECKKTLPGDPGSPDVTQV
VTQQVIQAYDIAKAAKQLVTITTKENN
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TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_001135214

ORF Size: 2187 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_001135214.3](#)

RefSeq ORF: 2190 bp

Locus ID: 9815

UniProt ID: [Q14161](#)

Cytogenetics: 12q24.11

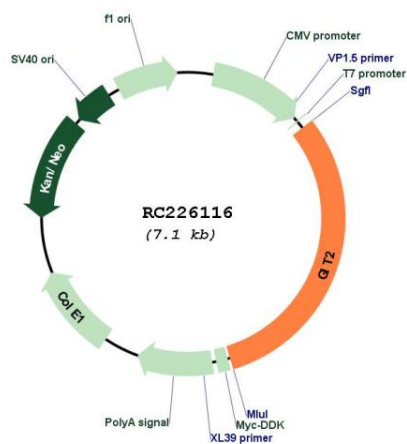
Protein Families: Druggable Genome

Protein Pathways: Endocytosis

MW: 81.1 kDa

Gene Summary: This gene encodes a member of the GIT protein family, which interact with G protein-coupled receptor kinases and possess ADP-ribosylation factor (ARF) GTPase-activating protein (GAP) activity. GIT proteins traffic between cytoplasmic complexes, focal adhesions, and the cell periphery, and interact with Pak interacting exchange factor beta (PIX) to form large oligomeric complexes that transiently recruit other proteins. GIT proteins regulate cytoskeletal dynamics and participate in receptor internalization and membrane trafficking. This gene has been shown to repress lamellipodial extension and focal adhesion turnover, and is thought to regulate cell motility. This gene undergoes extensive alternative splicing to generate multiple isoforms, but the full-length nature of some of these variants has not been determined. The various isoforms have functional differences, with respect to ARF GAP activity and to G protein-coupled receptor kinase 2 binding. [provided by RefSeq, Sep 2008]

Product images:



Circular map for RC226116