

Product datasheet for **RG219972**

GIT2 (NM_057170) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GIT2 (NM_057170) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	GIT2
Synonyms:	CAT-2; CAT2; PKL
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG219972 representing NM_057170
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGTCGAAACGGCTCCGGAGCAGCGAGGTGTCGCTGACTGCAGCGGGCCGGATCCTTCCTGGGCATCAG
 TAAATAGGGGAACGTTTTTATGTGATGAGTGCTGCAGTGCCATCGGAGTCTAGGGCGCCATATCTCCA
 AGTGAGGCATCTGAAACACACACCGTGGCCTCCAACACTGCTTCAGATGGTTGAGACCTTGATAATAAC
 GGTGCTAACTCTATATGGGAGCATTCTTTGCTGGACCCTGCGTCTATTATGAGTGAAGACGTAAAGCTA
 ATCCACAGGATAAAGTACATCCAATAAAGCGGAATTCATCAGAGCCAAGTATCAGATGTTAGCGTTCGT
 CCATCGCTTGCCCTGCCGGGATGACGATAGTGTGACTGCCAAAGATCTTAGCAAGCAACTCCATTCGAGC
 GTGAGAACAGGGAATCTTGAAACCTGTTGAGACTGTTATCTTTAGGAGCACAAGCCAATCTTTTCATC
 CTGAAAAAGGAAACCCCACTCCATGTTGCCTCAAAGCAGGGCAGATTTTACAGGCTGAATTATTGGC
 AGTATATGGAGCAGACCCAGGCACACAGGATTCTAGTGGGAAAACCTCCGTTGATTATGCAAGGCAAGGA
 GGGCACCATGAGCTGGCAGAGCGCTCGTGAAATACAGTATGAGCTAACGGACAGACTAGCCTTCTATC
 TCTGTGGCAGGAAACCAGATCACAAAAATGGACAGCACTTTATAATACCTCAAATGGCAGACAGCAGCCT
 GGATTTGTCTGAATTGGCAAAAGCTGCTAAGAAGAACTCAATCTTAAGTAATCATTTGTTTGAAGAA
 CTTGCCATGGATGTGTACGATGAAGTTGACAGGCGAGAGACGGATGCAGTCTGGCTTGCCACGAAAACC
 ACAGCGCCTGGTAACCGAGACAACGGTCTGCCCTTTCTCCGGTCAATCTGAGTACTCATCAACACG
 AAATCAGGGCAGACAGAAGTTAGCTCGGTTCAACGCCATGAGTTTCCACGCTGGTCATTGACATTCTC
 AGTGACGCCAAGAGGAGACAGCAGGGCAGTTCTCTCTCGGGTTCAAAGACAATGTGGAGCTCATACTGA
 AAACCATCAATAACCAGCACAGCGTTGAGAGTCAAGACAACGATCAGCCGACTATGACAGCGTGGCATC
 AGACGAAGACACAGATTTGGAAACCACTGCAAGCAAAACAAACCGGCAGAAAGCCCTAGATTTCAGATTTA
 TCAGATGGACCAGTCACTGTACAGGAATTTATGGAGGTCAAAAACGCTCTAGTGGCTTCTGAGGCCAAGA
 TACAGCAGCTAATGAAGGCATCCAGGCTGGAGAAGCAGAACAGCACACCTGAGAGTGACTACGACAACAC
 TCCCAACGACATGGAGCCAGATGGCATGGGGTCAAGCCGAAAGGGACGGCAAAGAAGTATGGTGTGGCCA
 GGGGATGGCTTGGTACCAGACACAGCAGAACCCTATGTGGCCCCAAGCCCCTCTCCCTAGCACCGAAG
 ATGTCATCAGGAAGACTGAACAGATCACAAAAACATACAGGAGCTTTAAGAGCAGCCCAAGAAAATAA
 ACATGACAGTTATATCCCTGCTCAGAGAGGATACACGTAGCTGTTACAGAAATGGCAGCATTATCCCC
 AAAAAACCAAGTCTGATATGGTGAAGACTTCCCTTCGTTTACTGACGTCCAGTGCCTACCGACTGCAGT
 CAGAGTGAAGAAGACCTCCCAGGGGACCCCGGCTCACCCACAGACGTTACAGCTGGTACGCAGCAGGT
 CATCCAGTGTGCGTACGACATCGCCAAGGCTGCCAAGCAGCTGGTTACCATCACCAACAAAGAGAACAAC
 AAC

ACGCGTACGCGGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG219972 representing NM_057170
 Red=Cloning site Green=Tags(s)

MSKRLRSSEVCADCSGPDPSWASVNRGTFLLCDECCSVHRSLGRHISQVRHLKHTPWPTLLQMVETLYNN
 GANSIWEHSLLDPASIMSGRRKANPQDKVHPNKAEIFIRAKYQMLAFVHRLPCRDDSVTAKDLSKQLHSS
 VRTGNLETCLRLSLGAQANFFHPEKGNTPHVASKAGQILQAEELLAVYGADPGTQDSSGKTPVDYARQG
 GHHELAERLVEIQYELTDRLAFYLCGRKPDHKNQHFIIIPQADSSLDLSELAKAAKKKLQSLSNHLFEE
 LAMDVYDEVDRRETDVWLATQNHSAIVTETTVVFPVNPPEYSSTRNQGRQKLARFNAHEFATLVIDIL
 SDAKRRQGSLSGSKDNVELILKTINNQHVSQDNDQPDYDSVASDEDTDLETTASKTNRQKSLDSDL
 SDGPVTYQEFMEVKNALVASEAKIQQLMKASRLEKQNSTPESDYDNTPNMPEPDGMGSSRKGRQRSMVWP
 GDGLVPDTAEPHVAPSPTLPSTEDVIRKTEQITKNIQELLRAAQENKHDSYIPCSERIHVAVTEMAALFP
 KKPKSDMVRTSLRLLTSSAYRLQSECKKTLPGDPGSPDVLVLTQVVIQCAVDIAKAAKQLVTITTKENN
 N

TRTRPLE – GFP Tag – V

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



ACCN: NM_057170

ORF Size: 1893 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_057170.5](#)

RefSeq Size: 5141 bp

RefSeq ORF: 1896 bp

Locus ID: 9815

UniProt ID: [Q14161](#)

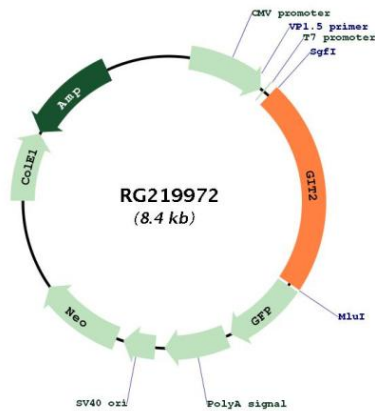
Cytogenetics: 12q24.11

Protein Families: Druggable Genome

Protein Pathways: Endocytosis

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 RG219972