

Product datasheet for **MR205391**

Gnai3 (NM_010306) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Gnai3 (NM_010306) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Gnai3
Synonyms:	A1158965; AW537698; Galphai3; Gnai-3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR205391 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGGCTGCACGTTGAGCGCCGAGGACAAGGCGCGGTGGAGCGGAGCAAGATGATCGACCCGAACCTTGC
GGGAGGACGGGGAGAAAGCGCCAAAGAAGTGAAGCTGCTGCTCGGCGCTGGAGAATCTGGTAAAAG
TACCATCGTGAACAGATGAAAATCATTATGAGGACGGCTATTCAGAGGACGAATGTAACAGTATAAA
GTAGTTGTCTACAGCAACTACTATTCAGTCCATCATTGCAATCATACGAGCCATGGGACGGTTGAAGATTG
ATTTTGGGAATCTGCCAGAGCAGATGATGCCCGACAGTTATTTGTTTTAGCTGGGAGTGTGAAGAAGG
AGTCATGACTTCAGAAGTACGAGCGTGATTAACGTTTTATGGCGAGATGGCGGGTACAGGCATGCTTT
AGCAGGTCCAGGGAATATCAGCTCAATGATTCTGCTTCATACTACCTAAATGATTTGGATAGAATATCCC
AGACCAACTACATTCCAAGTCAAGTGTCTTCGACAAGAGTGAAGACTACAGGCATTGTGGAGAC
CCACTTCACTTCAAGGAACTCTACTTCAAAATGTTTGTGTAGGTGGCCAAAGATCCGAACGAAAAAG
TGGATTCAGTGTGAGGGAGTGACAGCAATTATCTTTGTGTGGCTCTCAGTGATTACGACCTTGTTC
TGGCTGAGGATGAGGAAATGAACCGAATGCATGAAAGCATGAAATGTTTGACAGCATTTGTAACAACAA
ATGTTTTACAGACACTTCAATCATTCTCTTTCTTAATAAGAAAGACCTTTTTGAGGAAAAATAAAGAGG
AGTCCATTAACAATCTGTTATCCAGAATACACAGGTTCCAATACATACGAAGAGGCAGCTGCTTACATTC
AGTCCCAGTTTGAAGATCTGAACCGAAGAAAAGATACCAAGGAGGTCTACACTCACTTCACTGTGCCAC
AGACACCAAAAATGTGCAGTTTGTGTTTTGATGCTGTTACGGATGTCATCATTAATAAACAACCTTAAAGGAA
TGTGGGCTTTAT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTAA



[View online »](#)

Protein Sequence: >MR205391 protein sequence
Red=Cloning site Green=Tags(s)

MGCTLSAEDKAAVERSKMIDRNLRDGEKAAKEVKLLLLGAGESGKSTIVKQMKI IHEDGYSEDECKQYK
 VVYVSNTIQSIIAIIIRAMGRKIDFGESARADDARQLFVLGSAEEGVMSELAGVIKRLWRDGGVQACF
 SRSREYQLNDSASYLNDLDRISQTNYPQDVLTRVKTGTGIVETHFTFKELYFKMFDVGGQRSERKK
 WIHCFEGVTAIIFCVALS DYDLVLAEDEEMNRMHESMKLFDSICNNKWF TDTSIILFLNKKDLFEKIKR
 SPLTICYPEYTGSNTYEEAAAYIQCFEDLNRRKDTKEYVTHFTCATDTKNVQFVFDVAVTDVVIKNNLKE
 CGLY

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_010306

ORF Size: 1065 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_010306.3](#)

RefSeq Size: 3294 bp

RefSeq ORF: 1065 bp

Locus ID: 14679

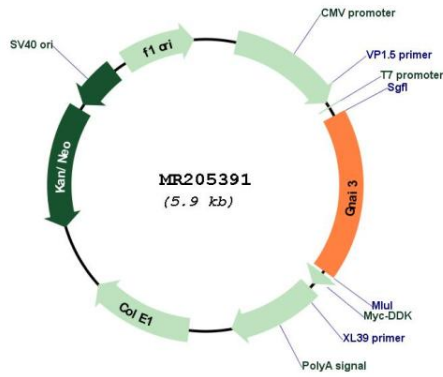
UniProt ID: [Q9DC51](#)

Cytogenetics: 3 46.83 cM

MW: 40.5 kDa

Gene Summary: Heterotrimeric guanine nucleotide-binding proteins (G proteins) function as transducers downstream of G protein-coupled receptors (GPCRs) in numerous signaling cascades. The alpha chain contains the guanine nucleotide binding site and alternates between an active, GTP-bound state and an inactive, GDP-bound state. Signaling by an activated GPCR promotes GDP release and GTP binding. The alpha subunit has a low GTPase activity that converts bound GTP to GDP, thereby terminating the signal. Both GDP release and GTP hydrolysis are modulated by numerous regulatory proteins. Signaling is mediated via effector proteins, such as adenylate cyclase. Inhibits adenylate cyclase activity, leading to decreased intracellular cAMP levels. Stimulates the activity of receptor-regulated K(+) channels. The active GTP-bound form prevents the association of RGS14 with centrosomes and is required for the translocation of RGS14 from the cytoplasm to the plasma membrane. May play a role in cell division.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR205391