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Product datasheet for RC205289

G protein alpha inhibitor 1 (GNAI1) (NM_002069) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	G protein alpha inhibitor 1 (GNAI1) (NM_002069) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	G protein alpha inhibitor 1
Synonyms:	Gi
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC205289 representing NM_002069
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGGCTGCACGCTGAGCGCCGAGGACAAGGCGGCGGTGGAGCGGAGTAAGATGATCGACCGCAACCTCC
GTGAGGACGGCGAGAAGGCGGCGCGCGAGGTCAAGCTGCTGCTGCTCGGTGCTGGTGAATCTGGTAAAAG
TACAATTGTGAAGCAGATGAAAATTATCCATGAAGCTGGTTATTCAGAAGAGGAGTGTAAACAATACAAA
GCAGTGGTCTACAGTAACACCATCCAGTCAATTATTGCTATCATTAGGGCTATGGGGAGGTTGAAGATAG
ACTTTGGTGACTCAGCCCGGGCGGATGATGCACGCCAACTCTTTGTGCTAGCTGGAGCTGCTGAAGAAGG
CTTTATGACTGCAGAACTTGCTGGAGTTATAAAGAGATTGTGGAAAGATAGTGGTGTACAAGCCTGTTTC
AACAGATCCCGAGAGTACCAGCTTAATGATTCTGCAGCATACTATTTGAATGACTTGGACAGAATAGCTC
AACCAAATTACATCCCGACTCAACAAGATGTTCTCAGAACTAGAGTGAAAACTACAGGAATTGTTGAAAC
CCATTTTACTTTCAAAGATCTTCATTTTAAAATGTTTGATGTGGGAGGTCAGAGATCTGAGCGGAAGAAG
TGGATTCATTGCTTCGAAGGAGTGACGGCGATCATCTTCTGTGTAGCACTGAGTGACTACGACCTGGTTC
TAGCTGAAGATGAAGAAATGAACCGAATGCATGAAAGCATGAAATTGTTTGACAGCATATGTAACAACAA
GTGGTTTACAGATACATCCATTATACTTTTTCTAAACAAGAAGGATCTCTTTGAAGAAAAAATCAAAAAG
AGCCCTCTCACTATATGCTATCCAGAATATGCAGGATCAAACACATATGAAGAGGCAGCTGCATATATTC
AATGTCAGTTTGAAGACCTCAATAAAAGAAAGGACACAAAGGAAATATACACCCACTTCACATGTGCCAC
AGATACTAAGAATGTGCAGTTTGTTTTTGATGCTGTAACAGATGTCATCATAAAAAATAATCTAAAAGAT
TGTGGTCTCTTT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

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Protein Sequence:

>RC205289 representing NM_002069
Red=Cloning site Green=Tags(s)

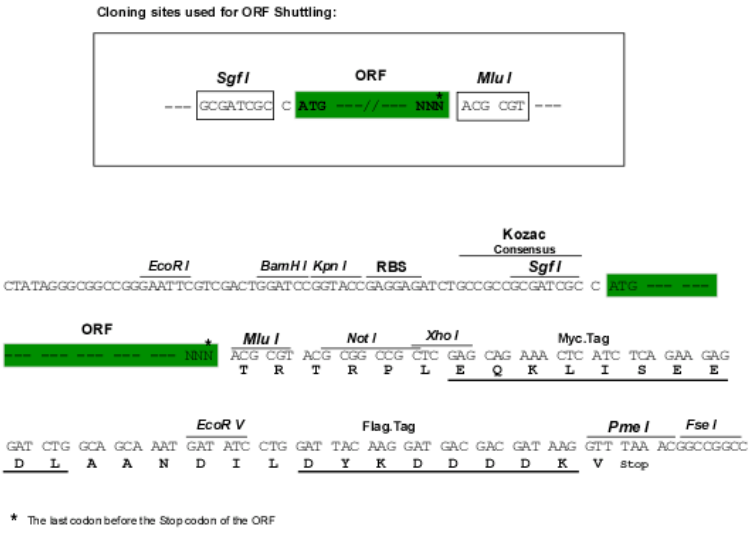
MGCTLSAEDKAAVERSKMIDRNLREDGEKAAREVKLLLLGAGESGKSTIVKQMKIIHEAGYSEEECKQYK
AVVYSNTIQSIIAIIRAMGRLKIDFGDSARADDARQLFVLAGAAEEGFMTAELAGVIKRLWKDSGVQACF
NRSREYQLNDSAAYYLNDLDRIAQPNYIPTQQDVLRTRVKTTGIVETHFTFKDLHFKMFDVGGQRSERKK
WIHCFEGVTAIIFCVALSDYDLVLAEDEEMNRMHESMKLFDSICNNKWFTDTSIILFLNKKDLFEEKIKK
SPLTICYPEYAGSNTYEEAAAYIQCQFEDLNKRKDTKEIYTHFTCATDTKNVQFVFDAVTDVIIKNNLKD
CGLF

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg3774_f07.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_002069

ORF Size: 1062 bp

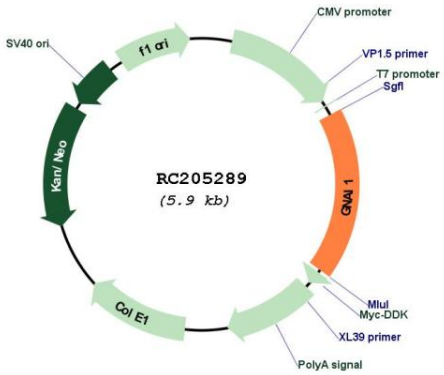
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

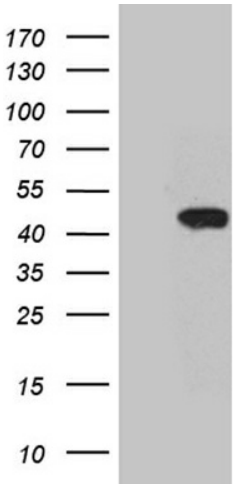
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_002069.6
RefSeq Size:	3342 bp
RefSeq ORF:	1065 bp
Locus ID:	2770
UniProt ID:	P63096
Cytogenetics:	7q21.11
Domains:	G-alpha
Protein Families:	Druggable Genome
Protein Pathways:	Axon guidance, Chemokine signaling pathway, Gap junction, Leukocyte transendothelial migration, Long-term depression, Melanogenesis, Progesterone-mediated oocyte maturation, Tight junction
MW:	40.2 kDa
Gene Summary:	Guanine nucleotide binding proteins are heterotrimeric signal-transducing molecules consisting of alpha, beta, and gamma subunits. The alpha subunit binds guanine nucleotide, can hydrolyze GTP, and can interact with other proteins. The protein encoded by this gene represents the alpha subunit of an inhibitory complex. The encoded protein is part of a complex that responds to beta-adrenergic signals by inhibiting adenylate cyclase. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jan 2012]

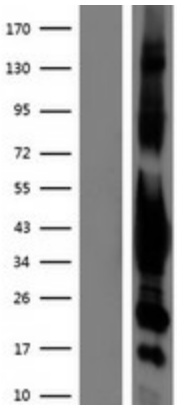
Product images:



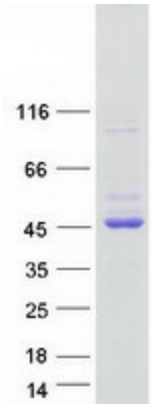
Circular map for RC205289



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY GNAI1 (Cat# RC205289, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-GNAI1 (Cat# [TA811907]). Positive lysates [LY419561] (100ug) and [LC419561] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY419561]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC205289 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified GNAI1 protein (Cat# [TP305289]). The protein was produced from HEK293T cells transfected with GNAI1 cDNA clone (Cat# RC205289) using MegaTran 2.0 (Cat# [TT210002]).