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Product datasheet for RC204634

RGS18 (NM_130782) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	RGS18 (NM_130782) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	RGS18
Synonyms:	RGS13
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC204634 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGAAACAACATTGCTTTTCTTTTCTCAAATAAATATGTGTGAATCAAAAGAAAAAACTTTTTTCAAGT
TAATACATGGTTCAGGAAAAGAAGAAACAAGCAAAGAAGCCAAAATCAGAGCTAAGGAAAAAAGAAATAG
ACTAAGTCTTCTTGTGCAGAAACCTGAGTTTCATGAAGACACCCGCTCCAGTAGATCTGGGCACTTGGCC
AAAGAAACAAGAGTCTCCCCTGAAGAGGCAGTGAAATGGGGTGAATCATTTGACAAACTGCTTTCCCATA
GAGATGGACTAGAGGCTTTTACCAGATTTCTTAAAACTGAATTCAGTGAAGAAAATATTGAATTTTGGAT
AGCCTGTGAAGATTTCAAGAAAAGCAAGGGACCTCAACAAATTCACCTTAAAGCAAAAGCAATATATGAG
AAATTTATACAGACTGATGCCCCAAAAGAGGTTAACCTTGATTTTCACACAAAAGAAGTCATTACAAACA
GCATCACTCAACCTACCCTCCACAGTTTTGATGCTGCACAAAGCAGAGTGTATCAGCTCATGGAACAAGA
CAGTTATACACGTTTTCTGAAATCTGACATCTATTTAGACTTGATGGAAGGAAGACCTCAGAGACCAACA
AATCTTAGGAGACGATCACGCTCATTTACCTGCAATGAATTCCAAGATGTACAATCAGACGTTGCCATTT
GGTTA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

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Protein Sequence:

>RC204634 protein sequence
Red=Cloning site Green=Tags(s)

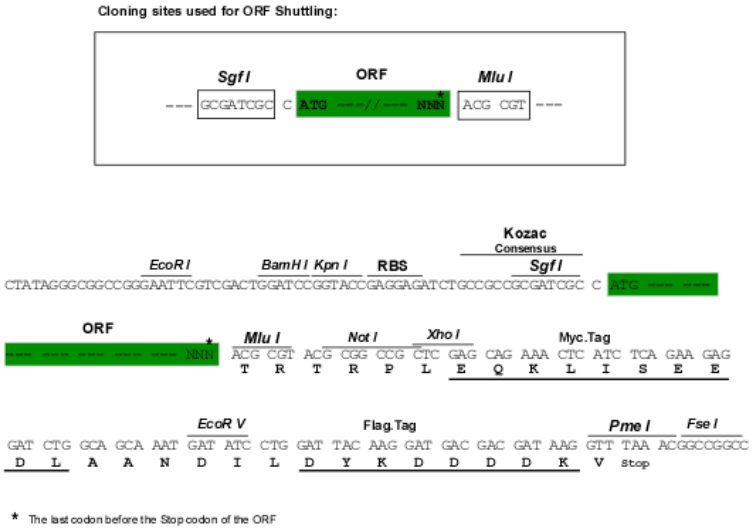
METTLLFFSQINMCESKEKTFFKLIHGSGKEETSKEAKIRAKEKRNRLSLLVQKPEFHEDTRSSRSGHLA
KETRVSPEEAVKWGESFDKLLSHRDGLEAFTRFLKTEFSEENIEFWIACEDFKKSKGPQQIHLKAKAIYE
KFIQTDAPKEVNLDFHTKEVITNSITQPTLHSFDAAQSRVYQLMEQDSYTRFLKSDIYLDLMEGRPQRPT
NLRRRSRSFTCNEFQDVQSDVAIWL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6551_a11.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_130782

ORF Size: 705 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_130782.1

RefSeq Size: 2158 bp

RefSeq ORF: 708 bp

Locus ID: 64407

UniProt ID: Q9NS28

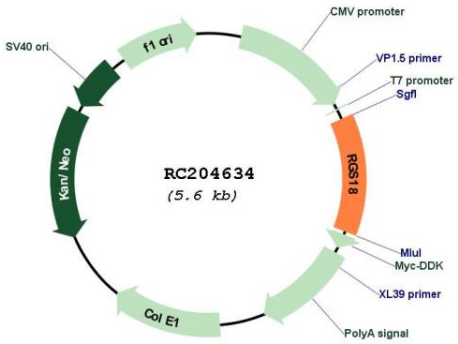
Cytogenetics: 1q31.2

Domains: RGS

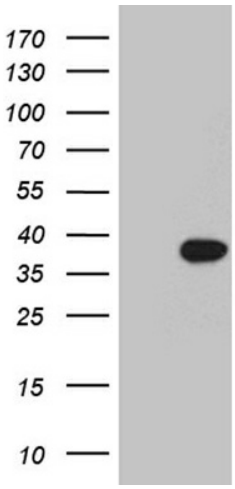
MW: 27.6 kDa

Gene Summary: This gene encodes a member of the regulator of G-protein signaling family. This protein is contains a conserved, 120 amino acid motif called the RGS domain. The protein attenuates the signaling activity of G-proteins by binding to activated, GTP-bound G alpha subunits and acting as a GTPase activating protein (GAP), increasing the rate of conversion of the GTP to GDP. This hydrolysis allows the G alpha subunits to bind G beta/gamma subunit heterodimers, forming inactive G-protein heterotrimers, thereby terminating the signal. Alternate transcriptional splice variants of this gene have been observed but have not been thoroughly characterized. [provided by RefSeq, Jul 2008]

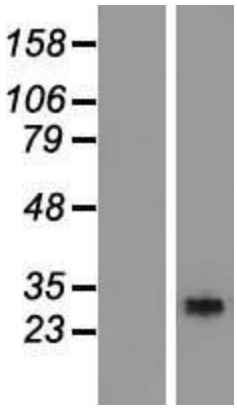
Product images:



Circular map for RC204634



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY RGS18 (Cat# RC204634, 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-RGS18(Cat# [TA812073]). Positive lysates [LY408941] (100ug) and [LC408941] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY408941]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC204634 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).