

Product datasheet for RC206546

GRAP2 (NM_004810) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GRAP2 (NM_004810) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GRAP2
Synonyms:	GADS; GRAP-2; GRB2L; GRBLG; GrbX; Grf40; GRID; GRPL; Mona; P38
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC206546 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGAAGCTGTTGCCAAGTTTGATTTCACTGCTTCAGGTGAGGATGAACTGAGCTTTCACACTGGAGATG
TTTTGAAGATTTAAGTAACCAAGAGGAGTGGTTAAGGCGGAGCTTGGGAGCCAGGAAGGATATGTGCC
CAAGAATTTTCATAGACATCCAGTTTCCCAATGGTTTACGAAGGCTCTCTCGACACCAGGCAGAGAAC
TACTCATGGGCAAGGAGTTGGCTTCTCATCATCCGGGCCAGCCAGAGCTCCCAGGGGACTTCTCCA
TCTCTGCAGGCATGAGGATGACGTTCAACACTTCAAGGTCATGCGAGACAACAAGGTAATTACTTTCT
GTGGACTGAGAAGTTCCATCCCTAAATAAGCTGGTAGACTACTACAGGACAAATCCATCTCCAGACAG
AAGCAGATCTTCTTAGAGACAGAACCCGAGAAGACCAGGGTCACCGGGCAACAGCCTGGACCGGAGGT
CCCAGGGAGGCCACACCTCAGTGGGGCTGTGGGAGAAGAAATCCGACCTTCGATGAACCGGAAGCTGTC
GGATCACCCCCGACCCTTCCCCTGCAGCAGCACCAGCACCAGCCACAGCCTCCGCAATATGCCCCAGCG
CCCCAGCAGCTGCAGCAGCCCCACAGCAGCGATATCTGCAGCACCACCATTTCCACCAGGAACGCCGAG
GAGGCAGCCTTGACATAAATGATGGGCATTGTGGCACCAGGCTTGGGCAGTGAAATGAATGCGGCCCTCAT
GCATCGGAGACACACAGACCCAGTGCAGCTCCAGGCGGCAGGGCAGTGCGGTGGGCCCGGGCGCTGTAT
GACTTTGAGCCCTGGAGGATGACGAGCTGGGGTTCCACAGCGGGGAGGTGGTGGAGTCTGGATAGCT
CCAACCCATCCTGGTGGACCGGCCGCTGCACAACAAGCTGGGCCCTTCCCTGCCAACTACGTGGCACC
CATGACCCGA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC206546 protein sequence
Red=Cloning site Green=Tags(s)

MEAVAKFDFTASGEDELSFHTGDVLKILSNQEEWFKAELGSQEGYVPKNFIDIQFPKWFHEGLSRHQAEN
 LLMGKEVGFIIIRASQSSPGDFISVVRHEDDVQHFVMDNKGNYFLWTEKFPSLNKLVDYYRTNSISRQ
 KQIFLDRRTREDQGHRGNSLDRRSQGGPHLSGAVGEEIRPSMNRKLSDHPPPTLPLQHQHQPPQYAPA
 PQLQPPQRYLQHHHFHQERRGSLDINDGHCGTGLGSEMNAALMHRRHDPVQLQAAGRVRWARALY
 DFEALEDELGFHSGEVVEVLDSNPSWWTGRLHNKLGFLPANYVAPMTR

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6016_c10.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_004810

ORF Size: 990 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_004810.4](#)

RefSeq Size: 3514 bp

RefSeq ORF: 993 bp

Locus ID: 9402

UniProt ID: [O75791](#)

Cytogenetics: 22q13.1

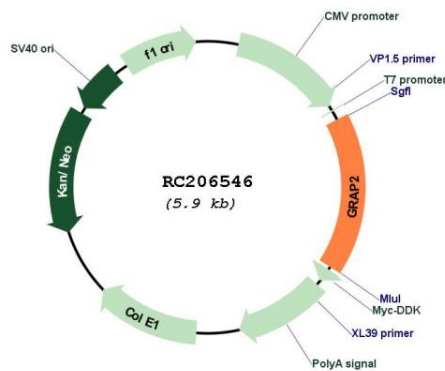
Protein Families: Druggable Genome

Protein Pathways: T cell receptor signaling pathway

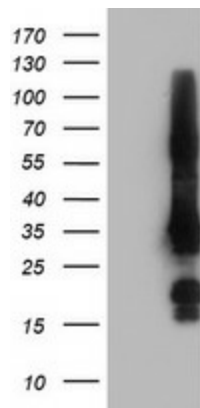
MW: 37.9 kDa

Gene Summary: This gene encodes a member of the GRB2/Sem5/Drk family. This member is an adaptor-like protein involved in leukocyte-specific protein-tyrosine kinase signaling. Like its related family member, GRB2-related adaptor protein (GRAP), this protein contains an SH2 domain flanked by two SH3 domains. This protein interacts with other proteins, such as GRB2-associated binding protein 1 (GAB1) and the SLP-76 leukocyte protein (LCP2), through its SH3 domains. Multiple alternatively spliced transcript variants encoding distinct isoforms have been found for this gene. [provided by RefSeq, Apr 2014]

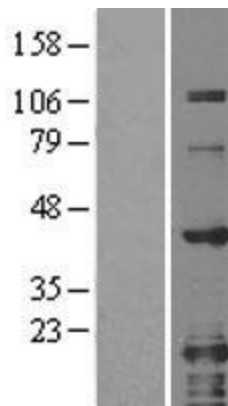
Product images:



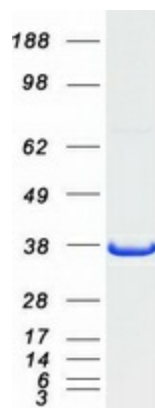
Circular map for RC206546



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY GRAP2 (Cat# RC206546, 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-GRAP2 (Cat# [TA502923]). Positive lysates [LY401511] (100ug) and [LC401511] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY401511]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC206546 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified GRAP2 protein (Cat# [TP306546]). The protein was produced from HEK293T cells transfected with GRAP2 cDNA clone (Cat# RC206546) using MegaTran 2.0 (Cat# [TT210002]).