

Product datasheet for **RC203842**

Granuphilin (SYTL4) (NM_080737) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Granuphilin (SYTL4) (NM_080737) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Granuphilin
Synonyms:	SLP4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC203842 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGTCGGAGTTACTGGACCTTTCTTTCTGTCTGAGGAGGAAAAGGATTTGATTCTCAGTGTCTACAGC
 GAGATGAAGAGGTCCGGAAGCAGATGAGAAAAGGATTAGGCGACTAAAGAATGAGTTACTGGAGATAAA
 AAGGAAAGGGGCCAAGAGGGGCAGCCAACACTACAGTGATCGGACCTGTGCCCGGTGCCAGGAGAGCCTG
 GGCCGTTTGAGTCCAAAACCAATACTTGTGGGGTTGTAATCACCTGGTGTGTCGGGACTGCCGCATAC
 AGGAAAGCAATGGTACCTGGAGGTGCAAGGTGTGCGCCAAGGAAATAGAGTTGAAGAAAGCAACTGGGGA
 CTGGTTTTATGACCAGAAAGTGAATCGCTTTGCTTACCGCACAGGTAGTGAGATAATCAGGATGTCCCTG
 CGCCACAAACCTGCAGTGAGTAAAAGAGAGACAGTGGGACAGTCCCTCCTCATCAGACACAGATGGGTG
 ACATCTGGCCAGGAAGAAAGATCATTGAGGAGCGCAGAAAGGAGCCAGTGTGCTATTTGAAGTGCCAAA
 GCTGAAAAGTGGAAAGAGTGCATTGGAAGCTGAGAGTGAAGTCTGGATAGCTTACAGCTGACTCGGAT
 AGCACCTCCAGGAGAGACTCTCTGGATAAATCTGGCCTCTTCCAGAATGGAAGAAGATGTCTGCTCCCA
 AATCTCAAGTAGAAAAGGAAACTCAGCCTGGAGGTCAAAATGTGGTATTTGTGGATGAGGGTGAGATGAT
 ATTTAAGAAGAACCAGAAAAATCCTCAGGCCTTACAGTACACTAAATCTGTGATAGATCTTCGCCCA
 GAAGATGTGGTACATGAAAGTGGCTCCTTGGGAGACAGAAGCAAAATCCGTCCCAGGCCTCAATGTGGATA
 TGGAAAGAGGAAGAAGAAGAAGACATTGACCACCTAGTGAAGTTACATCGCCAGAAGCTAGCCAGAAG
 CAGCATGCAAAGTGGCTCCTCCATGAGTACGATCGGCAGCATGATGAGCATCTACAGTGAAGCTGGTGT
 TTCGGGAACATCTTTGTGACTGGCAGGATTGCCTTTCCCTGAAGTATGAGCAGCAAACCCAGAGTCTGG
 TTGTCCATGTGAAGGAGTGCCATCAGCTGGCCTATGCTGATGAAGCCAAGAAGCGCTCTAACCCATATGT
 GAAGACTTACCTTCTGCCTGACAAGTCCCGCCAAGGAAAAAGAAAAACCAGCATCAAGCGGGACTGTT
 AATCCACTATATGATGAGACGCTGAGGTATGAGATCCCAGAATCTCTCCTGGCCAGAGGACCTGCAGT
 TCTCAGTTTGGCATCATGGTCGTTTTGGCAGAAACACTTTCTTGGAGAGGCAGAGATCCAGATGGATTC
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 GGCTTGCCATCACACAAAGGCGAGTTGGTGGTTTCATTGAAATACATCCCAGCCTCCAAAACCCCTGTTG
 GAGGTGACCGGAAAAAGAGTAAAGGTGGGAAGGGGAGAGCTCCAGGTGTGGATCAAAGAAGCCAAGAA
 CTTGACGGCTGCCAAAGCAGGAGGGACTTCAGACAGCTTTGTCAAGGGATACCTCCTCCCATGAGGAAC
 AAGGCCAGTAAACGTAAACTCCTGTGATGAAGAAGACCCTGAATCCTCACTACAACCATACATTTGTCT
 ACAATGGTGTGAGGCTGGAAGATCTACAGCATATGTGCCTGGAAGTACTGTGTGGGACCGGGAGCCCT
 GGCCAGCAATGACTTCTGGGAGGGGTCAGGCTGGGTGTTGGCACTGGGATCAGTAATGGGGAAGTGGTG
 GACTGGATGGACTCGACTGGGGAAGAAGTGAAGCTGTGGCAGAAGATGCGACAGTACCGAGGCTCTGGG
 CAGAAGGGACTCTGCAGCTCCGTTCTCAATGGCCAAGCAGAAGCTGGGTTTA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC203842 protein sequence
 Red=Cloning site Green=Tags(s)

MSELLDL SFLSEEEKDL ILSVLQRDEEVKKADEKRIRRLKNELLEIKRKGAKRGSQHYSDRTCARCQESL
 GRLSPKNTCRGCNHLVCRDCRIQESNGTWRCVKCAKEIELKKGATGDFYDQKVNRFAYRTGSEIIRMSL
 RHKPAVSKRETVGQSL LHQTQMGDIWPRKIIQERQKEPSVLFEVPKLKS GKSALEAESESLDSFTADSD
 STSRRDSL DKSGLFP EWKKMSAPKSQVEKETQPGGQNVVFVDEGEMIFKKNTRKILRPSEYTKSVIDLRP
 EDVVHESGLGDRSKSVPLNVDMEEEEEEDIDHLVKLHRQKLARSSMQSGSSMSTIGSMMSIYSEAGD
 FGNI FVTGRIAFSLKYEQQTQSLVHVHKECHQLAYADEAKKRSNPYVKTYLLPDKSRQGKRKTSIKRDTV
 NPLYDETLRYEIPESLLAQRTLQFSVWHHGRFGRNTFLGEAEIQMDSWKLDKKLDHCLPLHGKISAESPT
 GLPSHGELVVS LKYIPASKTPVGGDRKSKGEGGELQVWIKEAKNL TAAKAGTSDSFVKG YLLPMRN
 KASKRKT PVMKKTLNPHYNHTFVYNGVRLLEDLQHMCL ELTVWDREPLASNDFLGGVRLGVGTGISNGEVV
 DWMDSTGEEVSLWQKMRQYPGSWAEGTLQLRSSMAKQKLG L

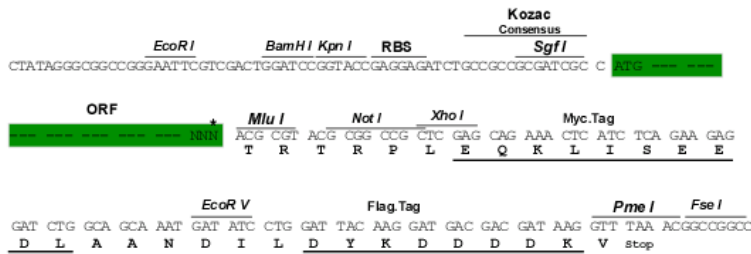
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6307_g07.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_080737

ORF Size: 2013 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_080737.1](#), [NP_542775.1](#)

RefSeq Size: 3936 bp

RefSeq ORF: 2016 bp

Locus ID: 94121

UniProt ID: [Q96C24](#)

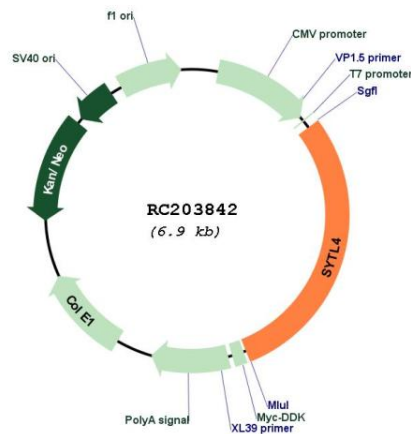
Cytogenetics: Xq22.1

Domains: C2, RPH3A_effector

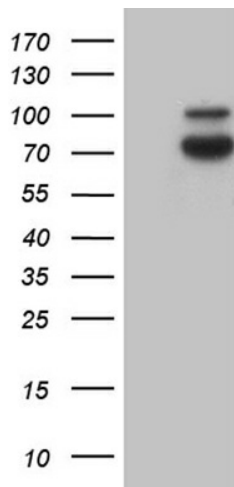
MW: 76 kDa

Gene Summary: This gene encodes a member of the synaptotagmin like protein family. Members of this family are characterized by an N-terminal Rab27 binding domain and C-terminal tandem C2 domains. The encoded protein binds specific small Rab GTPases and is involved in intracellular membrane trafficking. This protein binds Rab27 and may be involved in inhibiting dense core vesicle exocytosis. Alternate splicing results in multiple transcript variants that encode the same protein. [provided by RefSeq, Mar 2010]

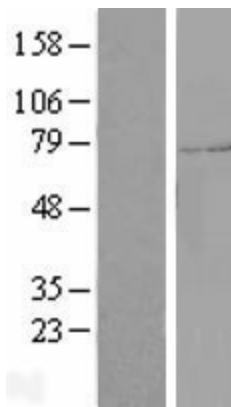
Product images:



Circular map for RC203842



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY SYTL4 (Cat# RC203842, 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-SYTL4 (Cat# [TA810576])(1:2000). Positive lysates [LY409049] (100ug) and [LC409049] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY427077]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC226081] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).