

Product datasheet for **RG222713**

NAV3 (NM_014903) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	NAV3 (NM_014903) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	NAV3
Synonyms:	POMFIL1; STEERIN3; unc53H3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG222713 representing NM_014903 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCTTGTCTTGGGGTTCCTCAAAGTGAAGCAGCCAGCTGTTGGGTCAAAGCCTGTGCATACTGCTC
TTCCGATACCAAATCTTGGCACTACTGGGTACAGCACTGTTCTTCAAGACCTTTGGAACCTGCTGAAAC
AGAGAGCTCCATGCTTTCTTGTGAGCTTGGCTTAAATCAACCTGTGAATTTGGAGAGAAGAAACCCCTC
CAAGGAAAAGCCAAGGAGAAAGAAGACAGCAAGATTTACTGACTGGCCAACTACCTAGCAAAT
CAGGCCACAAGCGGCTGATCAAGGACTTGAACAAGACATTGCAGATGGAGTACTCTAGCAGAAATCAT
CCAGATTATTGCAAATGAAAAGTTGAAGATATCAATGGATGTCCTAGAAGTCACTCAGATGATTGAA
AATGTTGATGCTGCCTTAGTTTTCTAGCAGCCAGAGGGTAAATGTTCAAGGTCTATCTGCTGAAGAAA
TAAGAAATGGAACCTTAAAGCCATTCTAGGGCTGTTTTTTCAGTTTATCTCGCTACAAGCAGCAACAACA
CCATCAACAACAGTACTATCAGTCTTGGTGGAACTTCAGCAGCGAGTACTCACGCTTCCCCTCCATCG
GAAGCCAGCCAGGCCAAAACCCAGCAAGATATGCAGTCCAGGCTTCCAGGGCCCTTAGGGTGCCTGCTG
CAGGAAGCAGCAGCAAGTCCAGGGAGCCTCTAATTTAAATAGGAGAAGTCAAGCTTTAACAGCATTGA
CAAAAACAAGCCTCCAAATATGCAAATGGAACGAAAAAGATTCTCCAAGGACCTCAATCGTCTTCA
GGTGTAATGGTAACGTGCAGCCTCCAGTACTGCTGGCAGCCTCCTGCCTGCCATCCCTTCTCCAA
GTGCCAGCAAGCCCTGGCGCAGCAAGTCCATGAATGTCAAACACAGTGCCACCTCCACCATGTTGACTGT
AAAGCAGTCAAGTACAGCCACCTCCCCACACCATCTTCAGACAGACTGAAGCCACCTGTCTCAGAAGGG
GTCAAAGTGTCCCTCAGGACAGAAATCCATGCTTGGAGAAATCAAGCTAGTCAATGCCCGGACTGCTT
TACGCCCCCGCAGCCTCCAGTTCAGGACCTAGTGTGGTGGGAAGGATGATGATGCCTTTTCTGAATC
TGGTGAATGGAAGGTTTTAACAGTGGTCTGAATAGTGGTGGCTCAACAATAGCAGTCCCAAAGTGTCA
CCTAAGTTGGCCCTCCAAAAGCTGGAAGCAAAAATCTCAGCAATAAAAAGTCTTTGCTACAGCCAAAGG
AAAAAGAAGAAAAGAACAGGGACAAAAATAAAGTTTGCAGTAAAAACCAGTCAAAGAAGAGAAGGATCA
GGTGACAGAGATGGCTCCAAAAAGACCTCCAAAATTGCAAGCTTGATCCCTAAGGGCAGCAAGACAACA



[View online »](#)

GCAGCTAAGAAGGAAAGCTTAATTCCATCTTCCAGTGGTATTCCAAAACCAGGCTCTAAAGTTCCAACAG
TAAAGCAAACCATTTACCTGGCAGCACAGCAAGCAAAGAGTCTGAGAAATTCAGGACTACCAAGGGGAG
CCCTTCCCAGTCTTATCTAAGCCTATAACCATGGAGAAAGCAAGTGCTTCTAGTTGCTCCTGCCCTTTG
GAAGGAAGGGAAGCTGGCCAAGCTTCTCCTTCTGGTTCCTGTACCATGACAGTGGCACAAGCAGTGGGC
AGAGCACAGGAAATGGTGTGTCCAACCTCCCTCAACAGCAGCAACATAGCCACCCGAATACCGGCACAGT
GGCACCATTCAATTACAGGGCACATTGAGAAAATGAAGGTACCGCTTTACCATCGGCTGACTCCTGTACC
AGTCTACAAAGATGGACTTATCATATAGTAAGACTGCTAAGCAGTGCCTGGAGGAGATATCTGGTGAAG
ACCCTGAAACAAGAAGAATGAGAACAGTTAAAAACATAGCAGACTTGAGGCAGAATTTAGAAGAGACTAT
GTCCAGTCTTCTGGGACTCAGATAAGCCACAGCACCTGGAGACAACATTTGACAGCACTGTGACAACA
GAAGTTAATGGAAGGACCATACCCAACCTTGACAAGTGCACCCACCCCATGACCTGGAGGTTGGGCCAGG
CATGTCCGCGACTTCAGGCGGGAGATGCTCCCTCCCTGGGTGCTGGCTATCCTCGCAGTGGTACCAGTGC
ATTCATCCACACAGACCCTCGAGGTTTATGTATACCACGCTCTCCGTCGAGTGTCTCTAGGCTG
GGAAACATGTACAGATTGACATGAGTGAGAAAGCAAGCAGTACCTGGACATGTCTTCTGAGGTCGATG
TGGGTGGATATATGAGTGTGGTATATCCTTGGGAAAAGTCTCAGGACTGATGACATCAACAGTGGGTA
CATGACAGATGGAGGACTTAACCTATATACTAGAAGTCTGAACCGAATACCAGACACAGCAACTCCCGG
GACATCATCCAGAGAGGGTTACAGATGTGACAGTGGATGCAGACAGCTGGGATGACAGCAGTTCAGTGA
GCAGTGGTCTCAGTGACACCCTTGATAACATCAGCACTGATGACCTGAACACCACATCCTCTGTCAGCTC
TACTCCAACATCACCGTCCCCTCTAGGAAGAATACTCAGCTGAGGACAGATTGAGAGAAACGCTCCACC
ACAGACGAGACCTGGGATAGTCTGAGGAACTGAAAAACAGAAAGATTTTGACAGCCATGGGGATG
CTGGTGGCAAGTGAAGACTGTCTCCTTGGACTTCTGAAGACCCCGAGAAGGCAGGGCAGAAAGCTTC
CCTGTCTGTTTCACAGACAGGTTCTGGAGAAGAGGCATGTCTGCCAAGGAGGGGCGCCATCTAGGCAG
AAAGCTGGAACAAGTGCCTCAAAACACCCGGGAAAACCGATGATGCCAAAGCTTCTGAGAAAGGAAAAG
CTCCCTAAAAGGATCATCTCTACAAGATCTCCTTTCAGATGCAGGAAAAGCAGTGGAGATGAAGGAA
AAAGCCCCCTCAGGCATTGGAAGATCGACTGCCACCAGTCTCTTGGCTTTAAGAAACCAAGTGGAGTA
GGTCTATCTGCCATGATCACCAGCAGTGGAGCAACCATAAACAAGTGGCTCTGCAACTGGGTAATAATC
CAAAATCTGCTGCCATTGGCGGGAAGTCAAATGCAGGGAGAAAAACAGTTTGGACGTTTACAGAAATCA
GGATGATGTTGTGCTGCATGTTAGCTCAAAGACTACCCTACAATATCGCAGCTTGCCCCGCCCTTCAAAA
TCCAGCACAGTGGCATTCTGGCCGAGGAGGCCACAGATCCAGTACCAGCAGTATTGATTTCAACGTCA
GCAGCAAGTCTGCTGGGGCCACCACCTCGAAACTGAGAGAACCAACTAAAATGGGTGAGGGCGCTCGAG
TCCTGTCACCGTCAACCAACAGACAAGGAAAAGGAAAAGTAGCAGTCTCAGATTGAGAAAGTGTTCCT
TTGTCAGGTTCCCCAAATCCAGCCCCACCTCTGCCAGCGCTGTGGTGCACAAGTCTCAGGCAGCCAG
GATCCAAGTATCCAGATATTGCCTCACCCACATTTGCAAGGTTGTTTGGTGCCAAGGCAGGTGGCAAATC
TGCTCTGCACCTAATACTGAGGGTGTGAAATCTTCTCAGTAATGCCAGCCCTAGTACCACATTAGCG
CGGCAAGGCAGTCTGGAGTACCCTCGTCCGGTACGGGCAGCATGGGCAGTGTGGTGGGCTAAGCGGCA
GCAGCAGCCCTCTTTCAATAAACCCCTCAGACTTAACTACAGATGTTATAAGCTTAAAGTCACTCGTTGGC
CTCCAGCCAGCATCGGTTCACTCTTTCACATCAGGTGGTCTCGTGTGGGCTGCCAATATGAGCAGTTCC
TCTGCAGGCAGCAAGGATACTCCGAGCTACCAGTCCATGACTAGCCTCCACACGAGCTCTGAGTCCATTG
ACCTCCCCCTCAGCCATCATGGCTCCTTGTCTGGACTGACCACAGGCACTCAGAGGTCCAGAGCCTGCT
CATGAGAACGGGTAGTGTGAGATCTACTCTCAGAAAGCATGCAGCTTGACAGAAATACACTACCCAAA
AAGGGACTAAGATATACCCATCATCTCGCAGGCCAACCAAGAAGAGGGCAAAGAGTGGTTGCGTTCTC
ATTCTACTGGAGGGCTTCAAGCACTGGCAACCAGTCACTCTGGTTTCCCTTCTGCCATGTCATCTTC
TGCAGCTGAAAAATACCCTTTTCTAACTTGGTGGAGCCCAACAAATTTGTCTCAATTTAACCTTCCCGGG
CCCAGCATGATGCGCTCAAACAGCATCCCAGCCCAAGACTCTTCTTTCGATCTCTATGATGACTCCCAGC
TTTGTGGGAGTGCCTTCTCTGGAGGAAAGACCTCGTGCATCAGTCAATCGGGCTCATTGAGAGACAG
CATGGAAGAAGTTCATGGCTCTTCAATCACTGGTGTCCAGCACTTCTTCTTTACTCTACAGCTGAA
GAAAAGGCTCATTGAGGCAAAATCCATAAACTGCGGAGAGAGCTGGTGCATCACAAGAAAAAGTTGCTA
CCCTCACATCTCAGCTTTCAGCAAAATGCTCACCTTGTAGCAGCTTTTGAAGAGCTTAGGGAATATGAC
TGGCCGATTGCAAAGTCTAACTATGACAGCGGAAACAAAAGGAATCTGAACCTATAGAAGTAAAGAAACC
ATTGAAATGCTGAAGGCTCAGAATCTGCTGCCAGGCGGCTATTGAGGAGCACTGAATGGTCCAGACC
ATCCTCCCAAAGATCTTGCATCAGAAGACAGCATTCTCTGAAAGTGTTCATGATCAACAGTCCAC
AAGCCATTCCAGTATTGGCAGTGGTAAATGATGCCGACTCCAAGAAGAAAAAGAAAAACTGGCTGAGA
AGTTCTTTCAACAAGCCTTTGGGAAGAAAAAGTCCCAAGCCTCTTCATCACATTCTGACATTGAAG

AGCTTACTGATTCATCCCTTCCGGCATCCCCAAGTTACCCCATAAATGCTGGTACTGTGGCTCAGCATC
CATGAAGCCCTCACAAATCTGCTTCAGCGATCTGTGAATGCACAGAAGCTGAGGCAGAGATAAATCTGCAG
CTGAAGAGCGAGCTCAGAGAAAAGGAATTAATAACGGATATTCGGCTGGAGGCCCTCAGCTCTGCTC
ATCATCTTGATCAGATCCGGGAAGCCATGAACCGGATGCAGAATGAAATGAAATACTGAAAGCTGAAAA
TGACCGGTTGAAGGCAGAACTGGTAACACAGCTAAGCCTACTCGGCCACCGTCAGAATCCTCAAGCAGC
ACCTCCTCTTTCATCTCCAGGCAGTCATTAGGACTTTCTCTAAACAATTTGAACATCACAGAGGCTGTTA
GCTCAGATATTTTGTAGATGATGCTGGTGTGCAACTGGACATAAAGATGGCCGAGTGTGAAAAATTAT
AGTCTCCATAAGCAAGGGCTATGGTCGAGCAAAGGACCAAAAATCTCAGGCATATTTGATAGGATCCATT
GGTGTAGTGAAAAACCAAGTGGGATGTCTTAGATGGTGAATAAGACGCTCTCTTAAGGAATATGTAT
TCCGAATTGATACATCCACTAGCCTTGGTCTGAGCTCTGACTGCATTGCTAGCTACTGTATAGGAGACTT
AATTAGATCCCATAACTAGAAGTGCCTGAATTGCTGCCTTGTGGATACCTTGTGGAGATAATAACATC
ATCACTGTGAACCTCAAAGGGTAGAAGAAAATAGTTTGGACAGTTTTGTTTTGATACGCTGATTCCTA
AACCAATTACCAAGGTACTTTAATTGTTGATGGAGCATCACAGAATTATACTCTCAGGACCGAGTGG
TACTGAAAGACCTATTTGGCAAACAACTTGCTGAATATGTAATAACCAATCTGGAAGGAAAAAACA
GAGGATGCAATTGCCACTTTTAATGTGGACCACAAGTCAAGTAAGGAATTGCAACAATATCTAGCTAAC
TGGCTGAACAGTGCAGTCTGATAATAATGGAGTGGAGCTCCCAGTTGTAATAATCTTGATAATCTTCA
TCATGTGGGCTCTCTGAGTGATATCTTCAATGGTTTTCTCAATTGTAAATACAACAAATGTCATATATT
ATTGGAACAATGAATCAGGGAGTTTCTTCATACCAAAATCTAGAGCTGCATCACAAATTCAGGTGGGTAT
TATGTGCAAAATCATACAGAACCAAGTAAAGGCTTTTTAGGCAGATATCTTGAAGAAAATCATAGAGAT
AGAAATGAAAGGAACATTCGCAATAATGACCTAGTCAAATATAGATTGGATTCCGAAGACGTGGCAT
CATCTCAACAGTTTTTTGGAAACACACAGTTCTTCTGACGTTACCATTGGTCCCCGACTATTCCTTCCTT
GCCCCATGGATGTAGAAGTTCTAGAGTATGGTTCATGGATCTCTGGAATTTCTTTAGTACCTTATAT
TCTGGAGGCAGTGAGAGGGTCTTCAGATGTATGGGAAACGCACACCATGGGAAGATCCTTCAAAGTGG
GTGCTTGACACATATCCATGGAGCTCAGCAACTCTGCCTCAGGAGAGCCAGCCTTACTTCAGCTGCGAC
CAGAAGATGTTGGTATGAAAGCTGCACATCCACTAAGGAAGCCACAACCTCAAAGCACATTCCACAAC
TGACACAGAAGGAGATCCCCTGATGAATATGCTAATGAACTCCAAGAAGCAGCCAATTACTCGAGCACA
CAAAGCTGCGACAGCGAAAGCACCAGCCACCATGAAGACATTTTGGATTCATCTCTTGAATCTACCTC

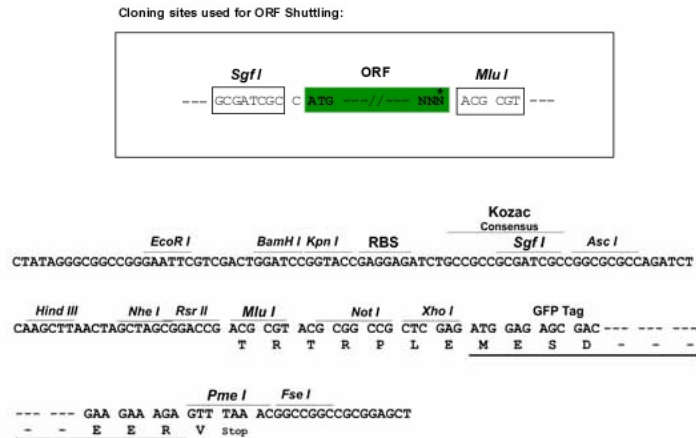
ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >RG222713 representing NM_014903
 Red=Cloning site Green=Tags(s)

MPVLGVASKLRQPAVGSKPVHTALPIPNLGTTGSQHCSSRPLELAETESSMLSCQLALKSTCEFGEKKPL
 QGKAKEKEDSKIYTDWANHYLAKSGHKRLIKDLQQDIADGVLLAEIIQIIANEKVEDINGCPRSQSQMIE
 NVDVCLSFLAARGVNVQGLSAEEIRNGNLKAILGLFFSLSRKQYQHHQQYYQSLVELQQRVTHASPPS
 EASQAKTQQDMQSRLPGPSRVPAAGSSSKVQGASNLNRRSQSFNSIDKNKPPNYANGNEKDSKGPQSSS
 GVNGNVQPPSTAGQPPASAIPPSPASKPWRSKSMNVKHSATSTMLTVKQSSSTATSPTPSSDRLKPPVSEG
 YKTAPSGQKSMLEKFKLVNARTALRPPQPPSSGSPDGGKDDDAFSESGEMEGFNSGLNSGGSTNSSPKVS
 PKLAPPKAGSKNL SNKKSLLQPKEKEEKNRDNKVCTEKPVKEEKDQVTEMAPKKT SKIASLIPKGSKTT
 AAKKESLIPSSSGIPKPGSKVPTVKQTI SPGSTASKESEKFRTTKGPSQSL SKPITMEKASASSCPAPL
 EGREAGQASPSGCTMTVAQSSGQSTGNGAVQLPQQQHSHPNTATVAPFIYRAHSENEGALPSADSCT
 SPTKMDLSYSKTAQCLEEISGEDPETRRMRTVKNIADLRQNLLETMSSLRGTQISHSTLETTFDSTVTT
 EVNGRTIPNLTSRPTMTWRLGQACPRQLQAGDAPSLGAGYPRSGTSRFIHTDPSRFMYTTPLRRAAVSRL
 GNMSQIDMSEKASSDLMSSEVDVGGYMSDGDILGKSLRTDDINSGYMTDGLNL YTRSLNRIPTATSR
 DI IQRGVHDVTVDADSWDDSSSVSSGLSDTL DNI STDDLNTTSSVSSYSNITVPSRKNTQLRTDSEKRST
 TDETWSPEELKKPEEDFDSHGDAAGGKWKTVSSGLPEDPEKAGQKASLSVSQTGSWRRGMSAQGGAPSRQ
 KAGTSALKTPGKTDDAKASEKGA PLKGGSSLQRSPSDAGKSSGDEGKKPPSGIGRSTATSSFGFKKPSGV
 GSSAMITSSGATITSGSATLGKIPKSAI GGKSNAGRKTSLDG SQNQDDVVLHVSKTTLQYRSLPRPSK
 SSTSGIPGRGGHRSSTSSIDSNVSSKSAGATTSKLRPTKIGSGRSSPVTVNQTDKEKEKAVVSDSESVS
 LSGSPKSSPTASACGAQGLRQPGSKYPDIASPTFRRLFGAKAGGKSASAPNTEGVKSSSVMPSPSTTLA
 RQGSLESPSSGTSMGSAGGLSGSSSPLFNKPSDLTDDVLSL SHSLASSPASVHSFTSGGLVWAANMSSS
 SAGSKDTPSYQSM TSLHTSSEIDLPLSHHGSL SGLTTGTHEVQSLLMRTG SVRSTLSESMQLDRNTLPK
 KGLRYTPSSRQANQE EGKEWLRSHSTGGLQDTGNQSP LVSPSAMSSSAAGKYHFSNLVSPTNLSQFNLP
 PSMRNSIPAQDSSFDLYDDSQLCGSAT SLEERPRAISHSGSFRDSMEEVHGSSL SVSSTSSLYSTAE
 EKAHSEQIHKLRRELVASQEKVATLTSQL SANAHLVAAFEKSLGNMTGRLQSLTMTAEQKESLIELRET
 IEMLKAQNSAAQAAIQGALNGPDHPPKDLRIRRHSSSESVSSINSATSHSSIGSGNDADSKKKKKKNWLR
 SSFKQAFGKKKSTKPPSSHSDIEELT DSSLPASPKLPHNAGDCGSASMKPSQSASAI CECTEAEAEIILQ
 LKSELREKELKLTDIRLEALSSAHHL DQIREAMNRMQNEIEILKAENDRLKAETGNTAKPTRPPSESSSS
 TSSSSSRQSLGLSLNNLNITEAVSSDILLDDAGDATGHKDGSRVSVKIVSISKGYGRAKDQKSOAYLIGSI
 GVSGKTKWDVLDGVIRRLFKEYVFRIDTSTSLGLSSDCIASYCI GDLIRSHNLEVPELLPCGYLVGDNNI
 ITVNLKGV EENSLDSFVFDLIPKPI TQRYFNLLMEHRIILSGPSGTGKTYLANKLA EYVITKSGRKKT
 EDAIATFNVDHKSSKELQQYLANLAEQCSADNNGVELPVV IILDNLHHVGSLSDFIFNGFLNCKYNKCPYI
 IGTMNQGVSSSPNLELHHNFRWVLCANHTEPVKGFLGRYLRRKLEIEIEIERNIRNNDLVKIIDWIPK TWH
 HLNSFLETHSSSDVTIGPRLFLPCPMDVEGSRVWFMDLWNYSLVPYILEAVREGLQMYGKRTPWEDPSKW
 VLDYTPWSSATLPQESPALLQLRPEDVGYE SCTSTKEATTSKHIPQTDTEGDPLMNMMLKLEAANYSSST
 QSCDSESTSHHEDILDSSLESTL

TRTRPLE - GFP Tag - V

Restriction Sites: Sgfl-MluI

Cloning Scheme:


ACCN: NM_014903

ORF Size: 6999 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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).

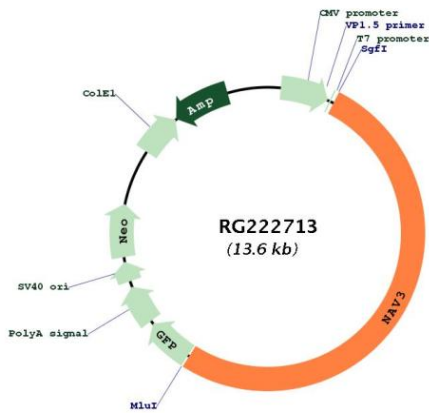
- Reconstitution Method:**
1. Centrifuge at 5,000xg for 5min.
 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
 3. Close the tube and incubate for 10 minutes at room temperature.
 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the 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_014903.3](#), [NP_055718.3](#)

RefSeq Size: 9758 bp
 RefSeq ORF: 7092 bp
 Locus ID: 89795
 UniProt ID: [Q8IVL0](#)
 Cytogenetics: 12q21.2
 Domains: CH, AAA

Gene Summary: This gene belongs to the neuron navigator family and is expressed predominantly in the nervous system. The encoded protein contains coiled-coil domains and a conserved AAA domain characteristic for ATPases associated with a variety of cellular activities. This gene is similar to *unc-53*, a *Caenorhabditis elegans* gene involved in axon guidance. Multiple alternatively spliced transcript variants for this gene have been described but only one has had its full-length nature determined. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RG222713