

Product datasheet for **RG235336**

KIF1A (NM_001244008) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: KIF1A (NM_001244008) Human Tagged ORF Clone
Tag: TurboGFP
Symbol: KIF1A
Synonyms: ATSV; C2orf20; HSN2C; MRD9; NESCAVS; SPG30; UNC104
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >RG235336 representing NM_001244008
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCCGGGGCTTCGGTGAAGGTGGCGGTGCGGGTCCGCCCTTCAATCCCGGGAATGAGCCGTGACT
CCAAGTGCATCATTAGATGTCTGGAAGCACCACCATTGTTAACCCCAAACAGCCCAAGGAGACGCC
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ACCTTGGGCGTATTCTCTCCAAAAAGACACCACACCTCGTCAACCTGAACGAGGACCCGCTGATGTCTG
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 GGCATCCTGCTGCAGGCCGCCAGCGACAAGGACATGCATGACTGGCTGTACGCCTTCAACCCCCTCTGG
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AGCGGACCGACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG235336 representing NM_001244008
 Red=Cloning site Green=Tags(s)

MAGASVKVAVRVRPFNSREMSRDSKCI IQMSGSTTTIVNPKQPKETPKSFSFDYSYWSHTSPEDINYASQ
 KQVYRDIGEEMLQHA FEGYNVCIFAYGQTGAGKSYTMMGKQEKDQGGIIPQLCEDLFSRINDTTNDNMSY
 SVEVSYMEIYCERVRDLLNPKNKGNLRVREHPLLGPYVEDLSKLA VTSYNDIQDLMDSGNKARTVAATNM
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 GADVGPSADEVNNNTCSAVPPEGLLLDSSEKAALDGPLDAALDHLRLGNTFFTRVTVLQASSISA EYADI
 FCQFNFIHRHDEAFSTEPLKNTGRGPPLGFYHVQNI AVEVTKSFIEYIKSQPIVFEVFGHYQQHPFPPLC
 KDVLSPLRPSRRHFPRVMPLSKVPATKLSL TRPCPGPCHCKYDLLVYFEICELEANGDYIPAVVDHRG
 GMPCMGTFLLHQGIQRRITVTL LHETGSHIRWKEVREL VVGRIRNTPETDES LIDPNILSLNILSSGYIH
 PAQDDRTFYQFEAAWSSMHNSLLLNRVTPYREKIYMTLSAYIEMENCTQPAVVTKDFCMVFYSRDAKLP
 ASRSIRNLFSGSLRASESNRVTVGYELSLCHVADAGSPGMQRRRRRRLDTSVAYVRGEENLAGWRPRSD
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 SLVEGRYGATDLRTPQPCSRPASPEPELLPEADSKKLPSPARATETDKEPQRLLPDIQEIRVSPIVSKK
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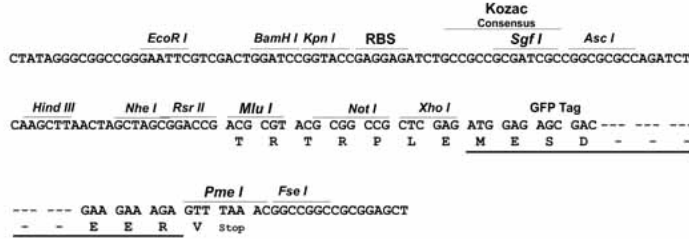
SGPTRRRLE - GFP Tag - V

Restriction Sites:

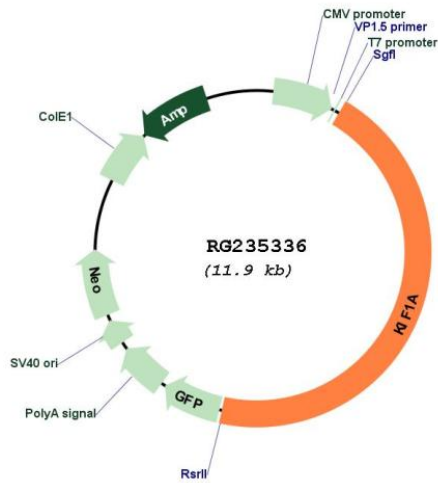
Sgfl-RsrII

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:



ACCN:	NM_001244008
ORF Size:	5373 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:	<ol style="list-style-type: none">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_001244008.2
RefSeq Size:	9233 bp
RefSeq ORF:	5376 bp
Locus ID:	547
UniProt ID:	Q12756
Cytogenetics:	2q37.3
Protein Families:	Druggable Genome
Gene Summary:	The protein encoded by this gene is a member of the kinesin family and functions as an anterograde motor protein that transports membranous organelles along axonal microtubules. Mutations at this locus have been associated with spastic paraplegia-30 and hereditary sensory neuropathy IIC. Alternatively spliced transcript variants encoding distinct isoforms have been described. [provided by RefSeq, Apr 2012]