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Product datasheet for RG226034

KLC2 (NM_001134775) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	KLC2 (NM_001134775) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	KLC2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

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ORF Nucleotide Sequence:

>RG226034 representing NM_001134775
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCCATGATGGTGTTTCCGCGGGAGGAGAAGCTGAGCCAGGATGAGATCGTGCTGGGCACCAAGGCTG
TCATCCAGGGACTGGAGACTCTGCGTGGGGAGCATCGTGCCCTGCTGGCTCCTCTGGTTGCACCTGAGGC
CGGCGAAGCCGAGCCTGGCTCGCAGGAGCGCTGCATCCTCCTGCGTCGCTCCCTGGAAGCCATTGAGCTT
GGGCTGGGGGAGGCCCAGGTGATCTTGGCATTGTCGAGCCACCTGGGGGCTGTAGAATCAGAGAAGCAGA
AGCTGCGGGCGCAGGTGCGGCGTCTGGTGCAGGAGAACCAGTGGCTGCGTGAGGAGCTGGCGGGGACACA
GCAGAAGCTGCAGCGCAGTGAGCAGGCCGTGGCCCAGCTCGAGGAGGAGAAGCAGCACTTGCTGTTCATG
AGCCAGATCCGCAAGTTGGATGAAGACGCCTCCCCTAACGAGGAGAAGGGGGACGTCCCCAAAGACACAC
TGGATGACCTGTTCCCCAATGAGGATGAGCAGAGCCCAGCCCCTAGCCCAGGAGGAGGGGATGTGTCTGG
TCAGCATGGGGGCTACGAGATCCCGGCCCGGCTCCGCACCCTGCACAACCTGGTGATCCAATACGCCTCA
CAGGGCCGCTACGAGGTAGCTGTGCCACTCTGCAAGCAGGCACTCGAAGACCTGGAGAAGACGTCAGGCC
ACGACCACCCTGACGTTGCCACCATGCTGAACATCCTGGCACTGGTCTATCGGGATCAGAACAAGTACAA
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GTGGCTGCGACACTAAACAACCTGGCAGTCCTGTATGGCAAGAGGGGCAAGTACAAGGAGGCTGAGCCAT
TGTGCAAGCGGGCACTGGAGATCCGGGAGAAGGTCCTGGGCAAGTTTCACCCAGATGTGGCCAAGCAGCT
CAGCAACCTGGCCCTGCTGTGCCAGAACCAGGGCAAAGCTGAGGAGGTGGAATATTACTATCGGCGGGCA
CTGGAGATCTATGCTACACGCCTCGGGCCCGATGACCCCAATGTGGCCAAGACCAAGAACAACCTGGCTT
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TGAGAAAGAGTTTGGCTCTGTCAATGGGGACAACAAGCCCATCTGGATGCACGCAGAGGAGCGGGAGGAA
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CGCGCACACACTAGAGGACTGTGCCAGCCGTAACCGCAAGCAGGGTTTGGACCCCGCAAGCCAGACCAAG
GTGGTAGAACTGCTGAAAGATGGCAGTGGCAGGCGGGGAGACCGCCGCAGCAGCCGAGACATGGCTGGGG
GTGCCGGGCCTCGGTCTGAGTCTGACCTCGAGGACGTGGGACCTACAGCTGAGTGGAATGGGGATGGCAG
TGGCTCCTTGAGGCGCAGCGGTTCCTTTGGGAAACTCCGGGATGCCCTGAGGCGCAGCAGTGAGATGCTG
GTAAAGAAGCTGCAGGGGGGCACCCCCCAGGAGCCCCCTAACCCCAGGATGAAGCGGGCCAGTTCCCTCA
ACTTCCTCAACAAGAGCGTGGAAGAGCCGACCCAGCCTGGAGGCACAGGTCTCTCTGACAGCCGCACTCT
CAGCTCCAGCTCCATGGACCTCTCCCGACGAAGCTCCCTGGTGGGC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

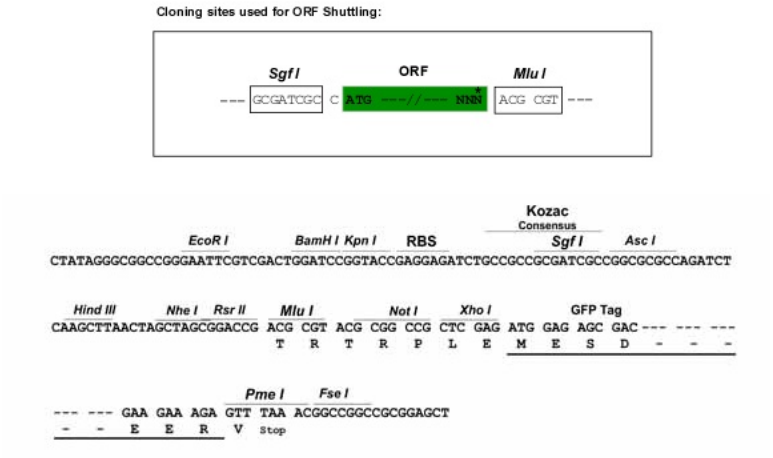
>RG226034 representing NM_001134775
Red=Cloning site Green=Tags(s)

MAMMVFPREEKLSQDEIVLGTKAVIQGLETLRGEHRALLAPLVAPEAGEAEPGSQERCILLRRSLEAIEL
GLGEAQVILALSSHLGAVESEKQKLRAQVRRLVQENQWLREELAGTQQKLQRSEQAVAQLEEEKQHLLFM
SQIRKLDEDASPNEEKGDVPKDTLDDLFPNEDEQSPAPSPGGGDVSGQHGGYEIPARLRTLHNLVIQYAS
QGRYEVAVPLCKQALEDLEKTSGHDHPDVATMLNILALVYRDQNKYKEAAHLLNDALAIREKTLGKDHPA
VAATLNNLAVLYGKRGKYKEAEPLCKRALEIREKVLGKFHPDVAKQLSNLALLCQNQGKAEEVEYYYRRA
LEIYATRLGPDDPNVAKTKNNLASCYLKQGKYQDAETLYKEILTRAHEKEFGSVNGDNKPIWMHAEEREE
SKDKRRDSAPYGEYGSWYKACKVDSPTVNTTLRSLGALYRRQGKLEAAHTLEDCASRNRKQGLDPASQTK
VVELLKDGSGRRGDRRSSRDMAGGAGPRSESDLEDVGPTAEWNGDGSGSLRRSGSFGKLRDALRRSSEML
VKKLQGGTPQEPPNPRMKRASSLNFLNKSVEEPTQPGGTGLSDSRTLSSSSMDLSRRSSLVG

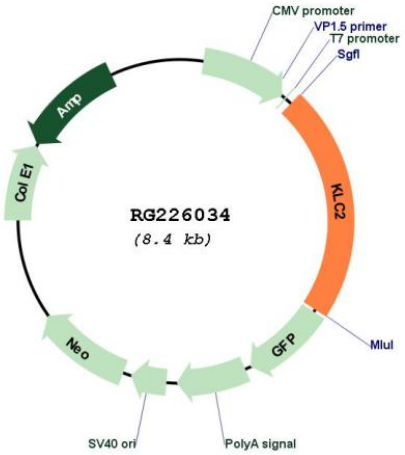
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001134775

ORF Size: 1866 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_001134775.1, NP_001128247.1
RefSeq Size:	3093 bp
RefSeq ORF:	1869 bp
Locus ID:	64837
UniProt ID:	Q9H0B6
Cytogenetics:	11q13.2
Protein Families:	Druggable Genome
Gene Summary:	The protein encoded by this gene is a light chain of kinesin, a molecular motor responsible for moving vesicles and organelles along microtubules. Defects in this gene are a cause of spastic paraplegia, optic atrophy, and neuropathy (SPOAN) syndrome. [provided by RefSeq, Mar 2016]