

## Product datasheet for **RG214206**

### **KLC2 (NM\_022822) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	KLC2 (NM_022822) 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:**

>RG214206 representing NM\_022822  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCCATGATGGTGTTCCTCCGCGGAGGAGAAGCTGAGCCAGGATGAGATCGTGTCTGGCCACCAAGGCTG  
 TCATCCAGGGACTGGAGACTCTGCGTGGGGAGCATCGTGCCCTGCTGGCTCCTCTGGTTGCACCTGAGGC  
 CGGCGAAGCCGAGCCTGGCTCGCAGGAGCGCTGCATCCTCCTGCGTCGCTCCCTGGAAGCATTGAGCTT  
 GGGCTGGGGGAGGCCAGGTGATCTTGGCATTGTCGAGCCACCTGGGGGCTGTAGAATCAGAGAAGCAGA  
 AGCTGCGGGCGCAGGTGCGGCGTCTGGTGCAGGAGAACCAGTGGCTGCGTGAGGAGCTGGCGGGACACA  
 GCAGAAGTGCAGCGCAGTGAGCAGGCCGTGGCCAGCTCGAGGAGGAGAAGCAGCACTTGTCTGTTTCATG  
 AGCCAGATCCGCAAGTTGGATGAAGACGCCTCCCTAACGAGGAGAAGGGGGACGTCCCCAAGACACAC  
 TGGATGACCTGTTCCCAATGAGGATGAGCAGAGCCAGCCCTAGCCCAGGAGGAGGGGATGTGTCTGG  
 TCAGCATGGGGGCTACGAGATCCCGGCCGGCTCCGCACCTGCACAACCTGGTGTCCAATACGCCTCA  
 CAGGGCCCTACGAGGTAGCTGTGCCACTCTGCAAGCAGGCACTCGAAGACCTGGAGAAGACGTCAGGCC  
 ACGACCACCTGACGTTGCCACCATGCTGAACATCCTGGCACTGGTCTATCGGGATCAGAACAAGTACAA  
 GGAGGCTGCCACCTGCTCAATGATGCTCTGGCCATCCGGGAGAAAACACTGGGCAAGGACCACCCAGCC  
 GTGGCTGCGACACTAAACAACCTGGCAGTCTGTATGGCAAGAGGGGCAAGTACAAGGAGGCTGAGCCAT  
 TGTGCAAGCGGGCACTGGAGATCCGGGAGAAGTCTGGGCAAGTTTCACCCAGATGTGGCAAGCAGCT  
 CAGCAACCTGGCCTGCTGTGCCAGAACCAGGGCAAAGCTGAGGAGGTGGAATATTACTATCGGCGGGCA  
 CTTGGAGATCTATGCTACACGCCTCGGGCCGATGACCCCAATGTGGCCAAGACCAAGAACAACCTGGCT  
 CTTGCTACCTGAAGCAGGGCAAGTACCAGGATGCGGAGACCTTGTACAAGGAGATCCTCACCCCGGCTCA  
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 CGCGCACACACTAGAGGACTGTGCCAGCCGTAACCGCAAGCAGGGTTTGGACCCGCAAGCCAGACCAAG  
 GTGGTAGAACTGCTGAAAGATGGCAGTGGCAGGCGGGGAGACCGCCGAGCAGCCAGACATGGCTGGGG  
 GTGCCGGGCTCGGTCTGAGTCTGACCTCGAGGACGTGGGACCTACAGCTGAGTGAATGGGGATGGCAG  
 TGGCTCCTTGGGCGCAGCGTTCTTTGGAAACTCCGGGATGCCCTGAGGCGCAGCAGTGAATGCTG  
 GTAAAGAAGTGCAGGGGGCACCCCCAGGAGCCCCCTAACCCAGGATGAAGCGGGCCAGTTCCTCTCA  
 ACTTCTCAACAAGAGCGTGGAAGAGCCGACCCAGCCTGGAGGCACAGGTCTCTCTGACAGCCGCACTCT  
 CAGCTCCAGCTCCATGGACCTCTCCCGCAAGCTCCCTGGTGGG

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:**

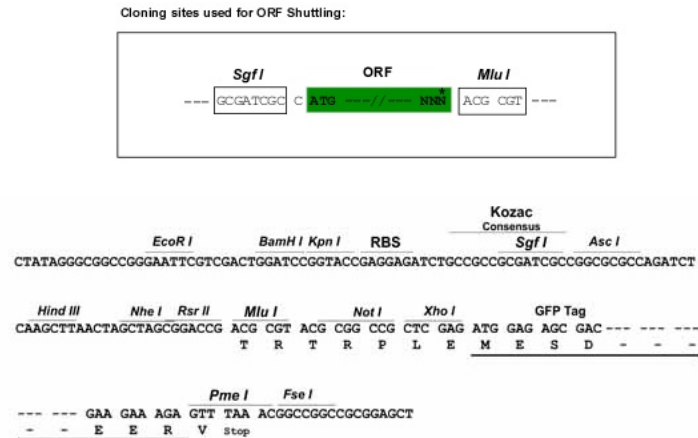
>RG214206 representing NM\_022822  
 Red=Cloning site Green=Tags(s)

MAMMVFPREEKLSQDEIVLGTKAVIQGLETLRGEHRALLAPLVAPEAGEAEPGSQERCILLRRSLEAIEL  
 GLGEAQVILALSSHLGAVESEKQLRAQVRRRLVQENQWLREELAGTQQKLQRSEQAVAQLEEEKQHLLFM  
 SQIRKLDDEASPNEEKGDVPKDLDLFPNEDEQSPAPSPGGDVSQHGQGYEIPARLRLHNLVIQYAS  
 QGRYEAVPLCKQALDLEKTSQHDHPDVATMLNILALVYRDQNKYKEAAHLLNDALAIREKTLGKDHPA  
 VAATLNNLAVLYGKRGKYKEAEPLCKRALEIREKVLGKFHPDVAKQLSNLALLCQNQGAEEVEYYYRRA  
 LEIYATRLGPDDPNVAKTKNNLASCYLKQKQYQDAETLYKEILTRAHEKEFGSVNGDNKPIWMHAEEERE  
 SKDKRRDSAPYGEYGSWYKACKYDSPTVNTTLRSLGALYRRQKLEAAHTLEDCASRNRKQGLDPASQTK  
 VVELLKDGSGRRGDRSSRDMMAGGAGPRSESDLEDVGPTEAWNGDGGSGSLRRSGSFGKLRDALRRSSEML  
 VKKLQGGTPQEPNPRMKRASSLNFLNKSVEEPTQPGGTGLSDSRTLSSSSMDLRRSSSLVG

**TRTRPLE** - GFP Tag - V

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**


**ACCN:** NM\_022822

**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\\_022822.3](#)

**RefSeq Size:** 2992 bp

**RefSeq ORF:** 1869 bp

**Locus ID:** 64837

**UniProt ID:** [Q9H0B6](#)

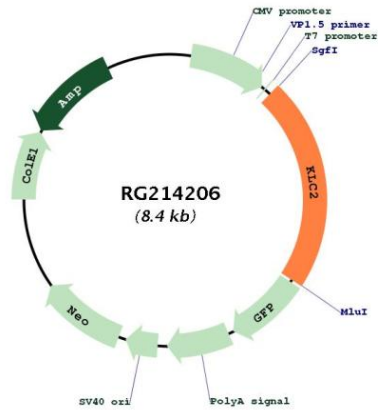
**Cytogenetics:** 11q13.2

**Domains:** TPR

**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]

**Product images:**



Circular map for RG214206