

## Product datasheet for **SC112411**

### **KLC2 (NM\_022822) Human Untagged Clone**

#### **Product data:**

|                           |                                       |
|---------------------------|---------------------------------------|
| Product Type:             | Expression Plasmids                   |
| Product Name:             | KLC2 (NM_022822) Human Untagged Clone |
| Tag:                      | Tag Free                              |
| Symbol:                   | KLC2                                  |
| Mammalian Cell Selection: | None                                  |
| Vector:                   | <u>pCMV6-XL4</u>                      |
| E. coli Selection:        | Ampicillin (100 ug/mL)                |



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Fully Sequenced ORF: >OriGene ORF within SC112411 sequence for NM\_022822 edited (data generated by NextGen Sequencing)

```
ATGGCCATGATGGTGTTCCTCGCGGGAGGAGAAGCTGAGCCAGGATGAGATCGTGCTGGGC
ACCAAGGCTGTATCCAGGGACTGGAGACTCTGCGTGGGGAGCATCGTGCCCTGCTGGCT
CCTCTGGTTGCACCTGAGGCCGGCGAAGCCGAGCCTGGCTCGCAGGAGCGCTGCATCCTC
CTGGCTCGCTCCCTGGAAGCCATTGAGCTTGGGCTGGGGGAGGCCAGGTGATCTTGCA
TTGTGAGCCACCTGGGGCTGTAGAATCAGAGAAGCAGAAGCTGCGGGCGCAGGTGCGG
CGTCTGGTGCAGGAGAACCAGTGGCTGCGTGAGGAGCTGCGGGGACACAGCAGAAGCTG
CAGCGCAGTGAGCAGGCCGTGGCCAGCTCGAGGAGGAGAAGCAGCACTTGTGTTTCATG
AGCCAGATCCGCAAGTTGGATGAAGACGCCTCCCCTAACGAGGAGAAGGGGGACGTCCCC
AAAGACACACTGGATGACCTGTTCCCAATGAGGATGAGCAGAGCCCAGCCCTAGCCCA
GGAGGAGGGGATGTGTCTGGTCAGCATGGGGGCTACGAGATCCCGGCCGGCTCCGCACC
CTGCACAACCTGGTGATCCAATACGCCTCACAGGGCCGCTACGAGGTAGCTGTGCCACTC
TGCAAGCAGGCACTCGAAGACCTGGAGAAGACGTGAGCCACGACCACCTGACGTTGCC
ACCATGCTGAACATCCTGGCACTGGTCTATCGGGATCAGAACAAGTACAAGGAGGCTGCC
CACCTGCTCAATGATGCTCTGGCCATCCGGGAGAAAACACTGGGCAAGGACCACCCAGCC
GTGGCTGCGACACTAAACAACCTGGCAGTCTGTATGGCAAGAGGGGCAAGTACAAGGAG
GCTGAGCCATTGTGCAAGCGGGCACTGGAGATCCGGGAGAAGGTCTGGGCAAGTTTCAC
CCAGATGTGGCCAAGCAGCTCAGCAACCTGGCCCTGCTGTGCCAGAACCAGGGCAAAGCT
GAGGAGGTGGAATATTACTATCGGCGGGCACTGGAGATCTATGCTACACGCCTCGGGCCC
GATGACCCCAATGTGGCCAAGACCAAGAACAACCTGGCTTCTGCTACCTGAAGCAGGGC
AAGTACCAGGATGCGGAGACCTTGTACAAGGAGATCCTCACCCGCGCTCATGAGAAAGAG
TTTGGCTCTGTCAATGGGGACAACAAGCCCATCTGGATGCACGCAGAGGAGCGGGAGGAA
AGCAAGGATAAAGCGCCGGGACAGCGCCCTATGGGGAATACGGCAGCTGGTACAAGGCC
TGTAAGTAGACAGCCCCACAGTCAACACCACCCTGCGCAGCTTGGGGGCCCTATACCGG
CGCCAGGGCAAGCTGGAAGCCGCGCACACACTAGAGGACTGTGCCAGCCGTAACCGCAAG
CAGGGTTTGGACCCCGCAAGCCAGACCAAGGTGGTAGAACTGCTGAAAGATGGCAGTGCC
AGGCGGGGAGACCGCCGACGAGCCGAGACATGGCTGGGGGTGCCGGCCCTCGGTCTGAG
TCTGACCTCGAGGACGTGGGACCTACAGCTGAGTGAATGGGGATGGCAGTGCTCCTTG
AGGCGCAGCGGTTCCCTTTGGGAACTCCGGGATGCCCTGAGGCGCAGCAGTGAGATGCTG
GTAAGAAGCTGCAGGGGGCACCCCCAGGAGCCCCCTAACCCAGGATGAAGCGGGCC
AGTTCCCTCAACTTCTCAACAAGAGCGTGAAGAGCCGACCCAGCCTGGAGGCACAGGT
CTCTCTGACAGCCGCACTCTCAGCTCCAGCTCCATGGACCTCTCCCGACGAAGCTCCCTG
GTGGGCTAA
```

Clone variation with respect to NM\_022822.2

**5' Read Nucleotide Sequence:**

>OriGene 5' read for NM\_022822 unedited  
 AAACATTCCTCCGCGTTGACNCTTAGGGCGGTAGCGTGTACGGTGGNGAGTCTATATAAG  
 CAGAGCTCGTTTGTGAAACCGTCAAGATTTTGTAAACGACTCACTATAGGGCGGCCGCG  
 AATTCGGCACCAGGCGGGATGGAGGCGGCGGACCGGCTCGCGGGTCCGGGTCCGGGTGA  
 AGCGGGAGGCAGCCAGAGTCGGAGCCGGGCTTTTACCAGGCGCAGACGCCACAGCCAT  
 GGCCATGATGGTGTTCGCGGGAGGAGAAGCTGAGCCAGGATGAGATCGTGTGGGCAC  
 CAAGGCTGTCATCCAGGACTGGAGACTCTGCGTGGGGAGCATCGTGCCCTGCTGGCTCC  
 TCTGGTTGCACCTGAGGCCGCGAAGCCGAGCCTGGCTCGCAGGAGCGCTGCATCCTCCT  
 CGTCCGCTCCCTGGAAGCCATTGAGCTTGGGCTGGGGAGGCCAGGTGATCTTGGCATT  
 GTCGAGCCACCTGGGGGCTGTAGAATCAGAGAAGCAGAAGCTGCGGGCGCAGGTGCGGCG  
 TCTGGTGCAGGAGAACCAGTGGCTGCGTGAGGAGCTGGCGGNGACACAGCAGAAGCTGCA  
 GCGCAGTGAGCAGGCCGTGGCCAGCTCGAGGAGGAGAAGCAGCACTTGTGTTTCATGAG  
 CCAGATCCGNCAGTTGGATGAAGACGCCTCCCCTAACGAGGAGAAGGGGGACGTCCCAA  
 AGACACACTGGATGACCTGTTCCCATGGAGATGAGCAGAGCCCAGCCCCAGCCCAANG  
 AGAGGNGATGTGTCTGGTCAAGATGGGGGCTACGAGATCCCGGGCCCGCTCCGCACCCTG  
 CACAACCTGTTGAATCCATACGCCTCACAGGGCCGCTACCAAGTAGCTGGTGCAC

**3' Read Nucleotide Sequence:**

>OriGene 3' read for NM\_022822 unedited  
 GTACACTATGNACGCGGCCGAATCTATGATCGGTTTTTTTTTTTTTTTTTTCATATTTA  
 AACCGTCTTTATTTCTACAGCAACATATGAAAATAGAGAGCAGCCGCCTCACCCGAACA  
 GGGGGAGCCCTCCTGCCACCAGGGGACCGTCGCCGCCCTCGCGAGAAGCTGCAGGCGT  
 GGGGGAGGCGAGGCAGGATGGCTCGGTGGGCGGTGCCCGGGCGGGGTGGCCGTGCCT  
 GGGCGGGCCGGGTGGGAGGGGCAAGTGCATAAGGCCGGGATGCGGGCATGGCCCGGCGG  
 TGGGAGGACGGACTAAGGGGAGGTCCCCGTCTGGCCACGAGGCGATGGCGCGGGTAGG  
 ACGCATCCCTCATAGGCCATGAGGAGCGCGAGAAGGTCCCAGGACCCCTTGGGAGGCGC  
 CGCTCCCGAGAATGTAGAGCCTGGGAGATACCACCGCACGGAATGGGGGTGATTAAGGCC  
 TGGGCGGTACCACTAGAATATGGACGAGGGGAGGCCCGGGTAGTACCGTGGACTGAAGGG  
 AGGCGCGCGGCAATAACTTATTTCTTATACAGAAAACAACGGCCGGGTGAGTCGGGA  
 AGGAGGGCGAGGGTGCCCAAAGGCCGCGAGGGCTAATGTTCTCTGCTCTGGGGTCTGG  
 GGGAGGCAGGCCACTGAGTCTATGGTGGAGACTCCAGCCGGGACCTCCTGGTGGGCCCA  
 ACCTATGGGAAAAGGGCCCCCGGGAGGGATAAATTAGCCGGGGGCGCTGGAGTGGGG  
 CAAGCCCCCCCCCAGGCTTCAAGCTGGGATGACAAGGGGAGAAGGGTCCCCCGGGT  
 ATTGGACCAAAAAAAAAACAGGGGCTGTGGGGAAAAACAAGCCGGGCATGCACCAGG

**Restriction Sites:**

NotI-NotI

**ACCN:**

NM\_022822

**Insert Size:**

3000 bp

**OTI Disclaimer:**

Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

**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\\_022822.1](#), [NP\\_073733.1](#)

**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]

Transcript Variant: This variant (1) represents an alternate 5' UTR and encodes the longer protein isoform (1). The same protein is encoded by transcript variants 1, 3, 4, and 5.