

## Product datasheet for **RR201784**

### **Tubb3 (NM\_139254) Rat Tagged ORF Clone**

#### **Product data:**

|                           |  |
|---------------------------|--|
| Product Type:             | Expression Plasmids                    |
| Product Name:             | Tubb3 (NM_139254) Rat Tagged ORF Clone |
| Tag:                      | Myc-DDK                                |
| Symbol:                   | Tubb3                                  |
| Mammalian Cell Selection: | Neomycin                               |
| Vector:                   | pCMV6-Entry (PS100001)                 |
| E. coli Selection:        | Kanamycin (25 ug/mL)                   |



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**ORF Nucleotide Sequence:**

>RR201784 representing NM\_139254  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGAGGGAGATCGTGCACATCCAGGCCGGCCAGTGCGCCAACAGATAGGGGCCAAGTCTGGGAGGTCA  
 TCAGTGACGAGCATGGCATAAGACCCAGCGGCAACTATGTGGGGACTCGGACCTGCAGCTGGAACGCAT  
 CAGTGTCTACTACAATGAGGCCCTCTCTACAAGTATGTGCCAGAGCCATTCTGGTGGACCTGGAGCCT  
 GGAACCATGGACAGCGTTCGGTCTGGGGCCTTTGGACACCTATTCAGGCCTGACAACCTTTATCTTCGGTC  
 AGAGTGGTGTGGCAACAAGTGGCCAAAGGGCACTATACAGAGGGCGCCGAGCTGGTGGACTCAGTCTT  
 GGATGTCGTGAGGAAAGAATGTGAGAATTGTGACTGCCTGCAGGGCTTCAGCTCACTCACTCACTGGGT  
 GGGGGCACGGCTCAGGCATGGGCACACTGCTCATCAGCAAAGTGCAGACCCGTGGTAGAGCCCTACAACGCCACCT  
 TGAACACCTTCAGCGTGGTCCCTCACCAAAGTGTGAGACCCGTGGTAGAGCCCTACAACGCCACCT  
 GTCATCCACCAGCTAGTGGAGAACACGGATGAGACCTACTGCATCGACAATGAAGCCCTCTACGACATC  
 TGCTTCCGACCCCTCAAGCTGGCTACACCCACCTACGGGGACCTCAACCACCTTGTGTCTGTACCATGA  
 GCGGAGTCAACACCTCCCTTCGATTCCCTGGTCACTCAATGCCGACCTCCGCAAGCTAGCTGTCAACAT  
 GGTGCCCTTCCCCGCTTGCATTTCTTCATGCCCGGCTTTGCCCACTAACAGCCCGGGGACGCAACAG  
 TACCGTGCCCTGACGGTGCCTGAGCTCACCCAGCAGATGTTTCGACGCCAAGAACATGATGGCTGCCTGTG  
 ACCCAGCCACGGCCGCTACCTGACCGTGGCCACCGTCTTCCGTGGGCGCATGTCATGAAGGAGGTGGA  
 TGAGCAGATGTGGCCATTCAGAGTAAGAACAGTAGTTACTTCGTGGAGTGGATCCCCAACACGTCAG  
 GTAGCGGTGTGTGACATCCCGCCCCGAGGGCTCAAGATGTCGTCCACCTTCATCGGCAACAGCACGGCCA  
 TCCAGGAGCTGTTCAAGCGCATCTCCGAGCAGTTTACGGCCATGTTCCGGCGCAAGGCCTTCTCCACTG  
 GTACACGGGCGAAGGCATGGATGAGATGGAGTTACCGAGGCCGAGAGCAACATGAACGACCTGGTGTCT  
 GAGTACCAGCAGTACCAGGACGCCACTGCCGAGGAGGAGGGGAGATGTGAAGATGACGACGAGGAGT  
 CGGAAGCCAGGGGCCAAGCGGAAGCCAGGGGCCAAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RR201784 representing NM\_139254  
 Red=Cloning site Green=Tags(s)

MREIVHIQAGQCGNQIGAKFWEVISDEHGIDPSGNYVGDSDLQLERISVYNEASSHKYVPRAILVDLEP  
 GTMDSVRSAGFGHLFRPDNFIQSGAGNNWAKGHYTEGAELVDSVLDVVRKECENCDCQLQGFQLTHSLG  
 GGTGSGMGTLLISKVREEYPDRIMNTFSVVPSPKVSVDTVVEPYNATLSIHQLVENTDETYCIDNEALYDI  
 CFRTLKLATPTYGDLNHLVSATMSGVTTSLRFPQQLNADLRKLAVNMPFPRLHFFMPGFAPLTARQSQQ  
 YRALTVPELTQQMFDKNNMAACDPRHGRYLTVATVFRGRMSMKEVDEQMLAIQSKNSSYFVEWIPNNVK  
 VAVCDIPRGLKMSSTFIGNSTAIQELFKRISEQFTAMFRRKAFLHWYTGEGMDEMEFTEAESNMNDLVS  
 EYQQYQDATAEEEGEMYEDDDEESEAQGPKRKPRGP

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/ja1685\\_d06.zip](https://cdn.origene.com/chromatograms/ja1685_d06.zip)

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**


**ACCN:** NM\_139254

**ORF Size:** 1350 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 Size:** 1796 bp

**RefSeq ORF:** 1353 bp

**Locus ID:** 246118

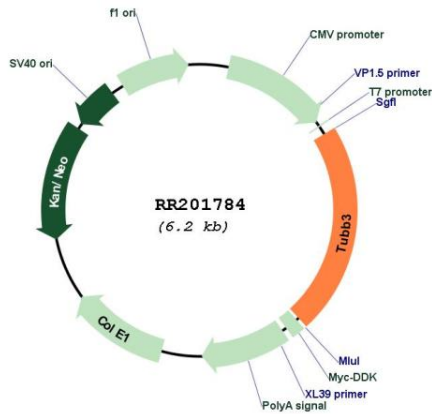
**UniProt ID:** [Q4QRB4](#)

**Cytogenetics:** 19q12

**MW:** 50.4 kDa

**Gene Summary:** Tubulin is the major constituent of microtubules. It binds two moles of GTP, one at an exchangeable site on the beta chain and one at a non-exchangeable site on the alpha chain. TUBB3 plays a critical role in proper axon guidance and maintenance (By similarity). Binding of NTN1/Netrin-1 to its receptor UNC5C might cause dissociation of UNC5C from polymerized TUBB3 in microtubules and thereby lead to increased microtubule dynamics and axon repulsion (By similarity). Plays a role in dorsal root ganglion axon projection towards the spinal cord (By similarity).[UniProtKB/Swiss-Prot Function]

**Product images:**



Circular map for RR201784