

## Product datasheet for **SC309233**

### Tau tubulin kinase 2 (TTBK2) (NM\_173500) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Tau tubulin kinase 2 (TTBK2) (NM_173500) Human Untagged Clone
Tag:	Tag Free
Symbol:	Tau tubulin kinase 2
Synonyms:	SCA11; TTBK
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL6</u>
E. coli Selection:	Ampicillin (100 ug/mL)

**Fully Sequenced ORF:** >OriGene sequence for NM\_173500 edited  
 CCGCCGCCAGTAAACGCGGACCGTACCCCAGGGGACTACCCAGCCGGCCCGCCCTGGAAG  
 CCGCGCTCGGGTCCCGCCGAGTCGCGGTGGGGATGGGCAGGCAGTGGCGGTCCCGCC  
 TGCCGAGGGTTAACCCCGCCGGTCCCGTCTGAGCTGGACCAGAGCCCTCCTCCAGAA  
 ACCCTGCGTCCGCCACGGCCAGGTTAAATGGAACCACCTTGGAACTGGATGCCTG  
 TGTAGCTGTTCTACCATATCAGTGTATTGCAATGAGTGGGGGAGGAGCAGCTGGATAT  
 CCTGAGTGTGGAATCCTAGTAAAAGAAAGATGGAAGTGTGAGAAAGATTGGGGTGG  
 GGGCTTTGGAGAAATTTACGATGCCTTGGACATGCTCACCAGGGAAAATGTTGCACTGAA  
 GGTGGAATCAGCTCAACAACCAAAACAAGTTCTGAAAATGGAAGTTGCTGTTTTGAAAAA  
 GCTGCAAGGAAAGACCATGTTTGTAGATTTATTGGCTGTGGGAGGAATGATCGATTCAA  
 CTATGTGGTCATGCAGTTGCAGGTTCGGAATCTGGCAGATCTTCGCCGTAGCCAGTCCCG  
 AGGCACATTACCATTAGTACCACTCTCCGGCTGGGTAGACAGATTTTGGAGTCTATTGA  
 AAGCATTCAATTCTGTGGGATTCTTGATCGAGACATCAAACCGTCGAACTTCGCTATGGG  
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 ACCGACTACCAGCTTCTTACATCCGTGTTTACAAATAGCATCAAGACTTTTGGAGTAAT  
 TGAGAGTGACCCTTTTACTGGGAGAAAGACTGGAATGATGGCTCCCTAACAAACCACCAC  
 TACTTCTACCACCCTCAGTTGCACACTCGCTTGACCCTGCTGCAATTGGAATTGCCAA  
 TGCTACTCCCATCCCTGGAGACTTGCTTCGAGAAAATACAGATGAGGTATTTCCAGATGA  
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 AAACAAGATAAAGCTTGGAAATTTGTAAGGCTGCTACTGAAGAGGAGAACGCCATGGCCA  
 GGCAAATGGTCTTCTCAATGCTCCAAGCCTTGGGTACCAATTCGTGCCCTCAGAGAT



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TACTCAGCCAGACAGAGATATTCCTACTGGTGCAGAAAGTTACGTTCCATTCACAGCTTTGA  
GCTGAAAAACGTCTGACCCTGGAGCCAAAGCCAGACACTGACAAGTTCCTTGAGACCTG  
CCTGGAGAAAAATGCAGAAAGATACCAGTGCAGGAAAAGAAATCTATTCTCCCTGCTCTGCT  
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TGGCAGCAATGGATTTATAGCTGTTAACCTGAGCTCTTGAAGCAAGAAATGATTCCAA  
AGAAATGGGTGATTGTGGACAAGGAGCAGGACCTCAGGATTTTAGGACAAATGAGGCTGT  
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AGGTCATCAAGGAGACCTCTACTTTTTTGCACCAAGAGGGCAAGAGAGAAAAATCAC  
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TCACCTGAGTAGGTCAGTGAAGATAGCTTTCTGTGACCCATCATCTCCAGTCTAGAAA  
GAGCAAAATTCAGGCCAGTTTCATGGGTCAACACAGATCAGGTCAATAGCTCAACTTC  
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CAGGCTACGCAGATATAAAGTCTTAGGGAGTAGTAACTCCGACTCAGACCTTTTCTCCCG  
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ACCTCCCAGCCACTCAGGATCTTCTCCTCCAGGAGGCTGCAACAGGAGCATTGCAA  
ACCCAGCAAGAATGGCCTGAAAGGATCCGGCAGCCTCCACCACCACTCAGCCAGCACTAA  
AACCCCAAGGGAGAGTAAGCCAGCCAGTAACTCAGCAGATAGGAGCCAGGCTGCAT  
CTCTTTGAAAGGTGTGAGATCTTCTCCTAAACCTGATGCATGTGTGTCCTGTACTTTT  
TATGTAAAAAAATCAGTGTGATCTTCTCTTGCAAAAAGAAATGATCAATATTTT  
ATAAGAAGACATAATACATGATAAGGAATTACCTAAGGCAGGCAGCAAGTAGATTAGGAA  
TCAATGTCXXXXXXXXXXXXXXXXATTTTATACATTTAGCCAATAAGGAATTAATATCT  
GGGGAAATAAATTTAGGCAATATTTCTTTTTTAAATGTTTTATTACCTGCTTCTCCTGTG  
TTTTAGTTCAACATTTGGGCTTNTTGGCCTGATTTTCATACAATCTCAATTTACGAAGCT  
GTAAGAGGAAGATATTTGTTCTAATCTACTTCTAATAGGAATCAGCCAAATGAAAG  
TCTACCAGACTTTTAAAATGGGGCTGTTTTTATACTCTCTAGGTGTTTTGTGTGTAAG  
ACCTTATTAAGGTCAGGTAATTTGGTCTGCTTGTGTTGAAATTTGCCTTCTAGCAAA  
TATGTGCTTTCTGTTGACCTTGTGTTGCTGCCAAACCTAATACAGTTGAATTGGGAAA  
CAAAAAAAAAAAAAAAAAA

<b>5' Read Nucleotide Sequence:</b>	<p>&gt;OriGene 5' read for NM_173500 unedited</p> <pre> CTTATACCCCGCCGTTGNCGCAATGGGCGGTAGGCGGTACGGTGGGAGGTCTATATA AGCAGAGCTCATTTAGGTGACACTATAGAATACAAGCTACTTGTCTTTTTGCAGCGGCC GCGAATTCGGCACGAGGGTCAGCGGGCTCTGCAGTAGTCGCCGACGCGGGCATGGGAGCG GTGGGGACGAGGGCGCNCNCGCANGAGGGGGAGCAGGTGCTGGCACAAGAGCAGCGG CTTGGGGGAGCCGGCAGCAGCAGTAACAGCAGCAGCAGCCGCCGCCGCCGCCAGTAA ACGCGGACCGTACCCAGGGGACTACCCAGCCGGCCGCTGGAAGCCGCGCTCGGGTC CCGCCGAGTCGCGGGTGGGGATGGGCAGGCAGTGGCGGTCCCGCTGCCGAGGGTTAA CCCCCGCCGGTCCCGGTCTGAGCTGGACCAGAGCCCTTCTCCAGAAACCCTGCGTTCCG CCACGGCCACGTTAAATGGAAACCCCTTGGGCACCGCCAGCCTGTGCATCTGTTCTA CCATATCATCGCATTGCAATGAGTGCCGGACGACAGCCGCTGATATCCCGCGTGGTGGG ATCCTTATTAAGAAACCAGGAAAGTCCCACCCAGAATTTGGGCCGCCGCTTCTGACC ACATAATCCTCCTTCCCTCTTCTCATGCCAATCCGCTCTCCCGGGGATATACTCCC CCTCCACCATCCTTTTTCAAAGGCACTCTCCGTTCCAAAAAATTCCCGGTAAAACCTC CCTCCCCTACATCAATGCGTCGGCGCGCAATCCTTTCTTACCCTCCCTCCTTCTCCC CTTCCCGCATCCTTAACTTCGTGTTCTCCCGCTCGGCCTTATCACCTACATCCCC ACCCGCCGCGGTAAACGAACCTGCGCTCCCT </pre>
<b>3' Read Nucleotide Sequence:</b>	<p>&gt;OriGene 3' genomic read for NM_173500 unedited</p> <pre> GGATTACATGNACGCGCGCTTTCTANGATCGAGTTTTTTTTTTTTTTTTTTTGTTC AATTCACTGTATTAGGTTTGGCAGCAAACACAAGGTCAAACAGAAAGCATATGTTTG CTAGAAGGCAAATTTCAACAGCAAGCAGACCAATTTACCTGACCTTAATAAGGTCTTTAC AACACAAAACACCTAGAGAGTATAAAAACAGCCATTTTAAAAGTCTGGTAGACTTTTCAT TTGCTGATTCTATTAGAAGAGTGAGATTAGAACAAATATCTTCTCTTTACAGCTTCG TAAATTTGAGATTGTATGAAAATCAGGCCAAGAAGCCAAATGTTGAACTAAAACACAGGA GAAGCAGGTAATAAAACATTAAGAAAGAAATATTTGCCTAAATTTATTTCCCGATATA AATTCCTTATTGGCTAAATGTATAAAAATACAAAGTTTGGAGATTCTAAGCCTCAATAATA TATCTAATTTATTTCTAAATCTCAAATCACAGTCCAAAGCATTGGGCTTCCCTCGTATCA TCTTGATGCTGATATTACCAACAGTTGGGACCCCGAAGACTTAAGGAAGCAGCCTACTC TGGGCAGTTTTTCTCTACCTCAATTTTTAAAGGGAGGACCTTAACAAAGATTGAAAGG GGATCTTTCTATTCTGAAGGCGTTTTAACCCACCTTTTTTTTTTTTCTAAAAACTA AAAGCCTGGAATAAAAGCCCTAGGTAGAATTTTTTTTTTCTTTCCCTCACCTTTCTTA ATTTTTTACATAATAAAAAAGGAAATATGGTTTAAAAAATCTGGCTCTAAAAAATAA AAATACGAGGGGACACTAAAAAATAAATTGGCGTTTTTGGAGCCACCCGGGGCC TATAAATAAAAGCCGAGAAGTTGGGT </pre>
<b>Restriction Sites:</b>	NotI-NotI
<b>ACCN:</b>	NM_173500
<b>Insert Size:</b>	6000 bp
<b>OTI Disclaimer:</b>	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).
<b>OTI Annotation:</b>	The open reading frame of this TrueClone was fully sequenced and found to be a perfect match to the protein associated to this reference.
<b>Components:</b>	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\\_173500.2](#), [NP\\_775771.2](#)

**RefSeq Size:** 5613 bp

**RefSeq ORF:** 4950 bp

**Locus ID:** 146057

**UniProt ID:** [Q6IQ55](#)

**Cytogenetics:** 15q15.2

**Protein Families:** Druggable Genome, Protein Kinase

**Gene Summary:** This gene encodes a serine-threonine kinase that putatively phosphorylates tau and tubulin proteins. Mutations in this gene cause spinocerebellar ataxia type 11 (SCA11); a neurodegenerative disease characterized by progressive ataxia and atrophy of the cerebellum and brainstem. [provided by RefSeq, Aug 2009]