

## Product datasheet for **SC305447**

### **BRSK1 (NM\_032430) Human Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	BRSK1 (NM_032430) Human Untagged Clone
Tag:	Tag Free
Symbol:	BRSK1
Synonyms:	hSAD1
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL4</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

**Fully Sequenced ORF:**

>OriGene sequence for NM\_032430 edited  
 GGCACCATGTCGTCCGGGGCCAAGGAGGGAGGTGGGGGCTCTCCCGCCTACCACCTCCCC  
 CACCCCCACCCCCACCCACCCACAGCAGCCCAATATGTGGGCCCTATCGGCTGGAGAAG  
 ACGCTGGGCAAAGGACAGACAGGGCTGGTTAAACTCGGGTCCACTGCATCACGGGTGAG  
 AAGGTCGCCATCAAGATCGTGAACCGGGAGAAGCTGTCGGAGTCGGTGTGATGAAGGTG  
 GAGCGGGAGATCGCCATCCTGAAGCTCATCGAACCCACATGTCCTCAAGCTCCACGAC  
 GTCTACGAGAACAAGAAATATTTGTACCTGGTTCTGGAGCACGTCTCGGGGGTGAGCTA  
 TTCGACTACCTGGTAAAGAAGGGGAGACTGACGCCAAGGAGGCCGAAAGTTCTCCGC  
 CAGATTGTGTCTGCGCTGGACTTCTGCCACAGCTACTCCATCTGCCACAGAGACCTAAAG  
 CCCGAGAACCTGCTTTTGGATGAGAAAAACAACATCCGCATTGCAGACTTCGGCATGGCG  
 TCCCTGCAGGTGGGGACAGCCTCCTGGAGACCAGCTGCGGGTCCCCCATTATGCGTGT  
 CCAGAGGTGATTAAGGGGAAAAATATGATGGCCGCCGGGACAGACATGTGGAGCTGTGA  
 GTCATCCTCTCGCCCTGCTCGTGGGGCTCTGCCCTTGTATGACGACAACCTCCGCCAG  
 CTGCTGGAGAAGGTGAAACGGGGCTCTCCACATGCCCACTTCACTTCCAGATTGC  
 CAGAGCCTCCTGAGGGGAATGATCGAAGTGGAGCCGAAAAAAGGCTCAGTCTGGAGCAA  
 ATTCAGAAACATCCTTGTACCTAGCGGGAAACACGAGCCAGACCCGTGCTGGAGCCA  
 GCCCTGGCCGCCGGGTAGCCATGCGGAGCCTGCCATCCAACGGAGAGCTGGACCCCGAC  
 GTCCTAGAGAGCATGGCATCACTGGGCTGCTTCAGGGACCGGAGAGGCTGCATCGCGAG  
 CTGCGCAGTGAGGAGGAGAACAAGAAAAGATGATATATTATCTGCTTTTGGATCGGAAG  
 GAGCGGTATCCCAGCTGTGAGGACCAGGACCTGCCTCCCCGGAATGATGTTGACCCCCC  
 CGGAAGCGTGTGGATTCTCCATGCTGAGCCGTACGGGAAGCGGCGACCAGAGCGGAAG  
 TCCATGGAAGTCTGAGCATCACCGATGCCGGGGTGGTGGCTCCCTGTACCCACCCGA  
 CGGGCTTGGAGATGGCCAGCACAGCCAGAGATCCCGTAGCGTCAGTGGAGCCTCCACG  
 GGTCTGTCTCCAGCCCTAAGCAGCCCAAGGAGTCCGGTCTTTTCTTTTACCAGGAG  
 CCGGGGGCTGGAGATGAGGCTCGAGGCGGGGGCTCCCCGACTTCCAAAACGCAGACGCTG  
 CCTTCTCGGGGCCAGGGTGGGGGCGCGGGGAGCAGCCCCGCCCCAGTGCCTCCG  
 TCCACACCCCTGCCCGGCCCCAGGCTCCCCGCGCTCCTCTGGCGGGACCCCTTGAC  
 TCGCCTCTGCACACGCCCGGGCCAGTCCACCCGGACCCCGGGGACAACACCACCCCC  
 AGCCCCGGCGGTGGCGTGGGGGAGCCGCTGGAGGAGTCTCAACTCCATCCGCAAC  
 AGTTCCTGGGCTCCCTCGCTTACCAGCGCAAGATGCAGGTCCTACCGCTGAGGAG  
 ATGTCCAGTTGACGCCAGAGTCTCCCGGAGCTGGCAAACGCTCCTGTTCCGGGAAC  
 TTCATCTCCTTGACAAAAGAACAATAATTCCTCGTGTAAAGGACAAACCTCTCAGC  
 AGCATCAAAGCAGACATCGTCCATGCCTTCTGTGATCCCCAGCCTGAGTCACAGTGTG  
 CTGTACAGACCAGTTCAGGGCCGAGTACAAGGCCAGTGGCGGCCCTCCGTCTTCAA  
 AAGCCCGTCCGCTTCCAGGTGGACATCAGCTCCTCTGAGGGTCCAGAGCCCTCCCCGCGA  
 CGGGACGGCAGCGGAGGTGGTGGCATCTACTCCGTACCTTCACTCTCATCTCGGGTCCC  
 AGCCGTGCGTTCAAGCGAGTGGTGGAGACCATCCAGGCACAGCTCCTGAGCACTCATGAC  
 CAGCCCTCCGTGACGGCCCTGGCAGACGAGAAGAACGGGGCCAGACCCGGCCTGCTGGT  
 GCCCCACCCGAAAGCCTGCAGCCCCACCCGGCCGCCAGACCCAGAGCTGAGCAGCTCT  
 CCCCAGGAGCCCCCAAGGACAAGAAGCTCCTGGCCACCAACGGGACCCCTCGCC  
 TGACCCACGGGGCCGGGAGGGAGGGGACCCCTCCACCCCTTCCGTGCCCCCAA  
 CTGTGAATCTGTAATAAGGCCAAGGAACATGTGGGAGGGGGTGGACAAAAAACCG  
 GCCTTGCCTGCAGGGATGGGGCTCCACAGGCCGTGCCAACTGGGGTGGTTCTAGGGG  
 AACAGGGGGCGGGGAGCTGTTTCTATTTATTATTGATTAATTTATTTATTTATTTAT  
 TGATCAATCTCTCGGGGTGGGGTGGGGGAGGGACGGGAGTGGTTGGGGTGGCTTAG  
 CAGATCCGGACAGGGCCCTGTCCCTGTGTCGTCCTCCCAACCCCTCTTCCGGGCCCT  
 CCTCCCCTGGTCTCCCCCAGCACCTTCTGTACGGATTTGCTCTCCGGAAGGAATCTG  
 GTTTCGCGTGATCCTGCCTGCGTCCGTGTCTGATTCCGCCGGCGGCAAAAAAAAAA  
 AAAAAAAAAAAAAAAAAAAGATAATAATAATAATAGCCTTGATCAGGGAAAAAAAAA  
 AAAAAAAAAAAAAAAAAA

**Restriction Sites:**

Please inquire

<b>ACCN:</b>	NM_032430
<b>Insert Size:</b>	2900 bp
<b>OTI Disclaimer:</b>	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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. <a href="#">More info</a></p>
<b>OTI Annotation:</b>	The ORF of this clone has been fully sequenced and found to be a perfect match to the protein associated with this reference, NM_032430.1.
<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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>RefSeq:</b>	<a href="#">NM_032430.1</a> , <a href="#">NP_115806.1</a>
<b>RefSeq Size:</b>	3109 bp
<b>RefSeq ORF:</b>	2337 bp
<b>Locus ID:</b>	84446
<b>UniProt ID:</b>	<a href="#">Q8TDC3</a>
<b>Cytogenetics:</b>	19q13.42
<b>Protein Families:</b>	Druggable Genome, Protein Kinase

**Gene Summary:**

Serine/threonine-protein kinase that plays a key role in polarization of neurons and centrosome duplication. Phosphorylates CDC25B, CDC25C, MAPT/TAU, RIMS1, TUBG1, TUBG2 and WEE1. Following phosphorylation and activation by STK11/LKB1, acts as a key regulator of polarization of cortical neurons, probably by mediating phosphorylation of microtubule-associated proteins such as MAPT/TAU at 'Thr-529' and 'Ser-579'. Also regulates neuron polarization by mediating phosphorylation of WEE1 at 'Ser-642' in post-mitotic neurons, leading to down-regulate WEE1 activity in polarized neurons. In neurons, localizes to synaptic vesicles and plays a role in neurotransmitter release, possibly by phosphorylating RIMS1. Also acts as a positive regulator of centrosome duplication by mediating phosphorylation of gamma-tubulin (TUBG1 and TUBG2) at 'Ser-131', leading to translocation of gamma-tubulin and its associated proteins to the centrosome. Involved in the UV-induced DNA damage checkpoint response, probably by inhibiting CDK1 activity through phosphorylation and activation of WEE1, and inhibition of CDC25B and CDC25C.[UniProtKB/Swiss-Prot Function]