

Product datasheet for **SC122540**

BRSK1 (BC016681) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	BRSK1 (BC016681) Human Untagged Clone
Tag:	Tag Free
Symbol:	BRSK1
Synonyms:	BR serine/threonine kinase 1; FLJ43009; KIAA1811; protein kinase SAD1A; SAD1 kinase
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF:

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>OriGene sequence for BC016681 edited
GACTAGTTCTAGATCGCGAGCGGCTGGGAGGGTGGGATGCCAGGGTTCCTGAGAGGCAA
CGGGCTAGGGACTCGGACTTATGGGTCCTGGGGGAAGAGGACACAGCTAGAGAAGGAGTC
TAGGGGTGAGAGGAGGAGGGGCTAAGCTAGGAGTCCAGGACTCCCAGAGGCGGGAAACA
CGAGCCAGACCCGTGCCTGGAGCCAGCCCTGGCCGCGGGTAGCCATGCGGAGCCTGCC
ATCCAACGGAGAGCTGGACCCCGACGTCCTAGAGAGCATGGCATCACTGGGCTGCTTCAG
GGACCCGAGAGGCTGCATCGCGAGCTGCGCAGTGAGGAGGAGAACCAAGAAAAGATGAT
ATATTATCTGCTTTTGGATCGGAAGGAGCGGTATCCCAGCTGTGAGGACCAGGACCTGCC
TCCCCGGAATGATGTTGACCCCCCGGAAGCGTGTGGATTCTCCCATGCTGAGTCGTCA
CGGGAAGCGGCGACCAGAGCGGAAGTCCATGGAAGTCTGAGCATCACCGATGCCGGGGG
TGGTGGCTCCCCTGTACCCACACGACGGGCCTTGGAGATGGCCAGCACAGCCAGAGATC
CCGTAGCGTCAGTGGAGCCTCCACGGGTCTGTCTCCAGCCCTCTAAGCAGCCCAAGGAG
TCCGGTCTTTTCTTTTACCAGGAGCCGGGGCTGGAGATGAGGCTCGAGCGGGGGCTC
CCCAGCTTCCAAAACGCAGACGCTGCCTTCTCGGGGCCAGGGTGGGGCGCCGGGGA
GCAGCCCCGCCCCCAGTGCCCGCTCCACACCCTGCCCGCCCCCAGGCTCCCCGCG
CTCCTCTGGCGGGACCCCTTGCACTCGCTCTGCACACGCCCGGGCCAGTCCCACCGG
GACCCCGGGGACAAACACCACCCCCAGCCCGGGTGGCGTGGGGGAGCCGCCTGGAG
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GATGCAGGTCCCTACCGTGAGGAGATGTCAGCTTGACGCCAGAGTCTCCCCGGAGCT
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CGTGCTAAAGGACAACTCTCAGCAGCATCAAAGCAGACATCGTCCATGCCTTCTGTG
GATCCCCAGCCTGAGTCACAGTGTGCTGTACAGACCAGCTTCAGGGCCGAGTACAAAG
CAGTGGCGGGCCCTCCGTCTTCCAAAAGCCCGTCCGCTTCCAGGTGGACATCAGCTCCTC
TGAGGGTCCAGAGCCCTCCCCGCGACGGGACGGCAGCGGAGGTGGTGGCATCTACTCCGT
CACCTTCACTCTCATCTCGGGTCCAGCCGTGGTTCAAGCGAGTGGTGGAGACCATCCA
GGCACAGTCTCTGAGCACTCATGACCAGCCCTCCGTGCAGGCCCTGGCAGACGAGAAGAA
CGGGGCCAGACCCGGCTGCTGGTGGCCACCCGAAGCCTGCAGCCCCACCCGGCCG
CCCAGACCCAGAGCTGAGCAGCTCTCCCCGCGAGCCCCCCCCAAGGACAAGAAGCTCCT
GGCCACCAACGGGACCCCTTGCCTGACCCACGGGGCCGGGAGGGAGGGGACCCCCC
TCCACCCCTTCCGTGCCCCCAACTGTGAATCTGTAATAAGGCCCAAGGAACATGTC
GGGAGGGGGTGGACACAAAACCGGCCTTGCCTGCAGGGATGGGGCTCCACAGGCCGT
GCCCAACTGGGGTGGTTCTAGGGGAACAGGGGCGGGGAGCTGTTTCTATTTTATTTA
TTGATTAATTTATTTTATTTTATTTATTTGATCAATCTCTCTGCGGGTGGGGTGGGGAGGG
ACGGGAGCTGGTTGGGGTGGCTTAGCAGATCCGGACAGGGCCCTCTGTCCCTGTGTGTC
CCCAACCCCTTCCCGGGCCCTCCTCCCCTGGTCTCCCCCAGCAGCTTCTGTACG
GATTTGCTCTCCGGAAGGAATCTGGTTTCGCGTGATCCTGCCTGCGTCCGTGTCTCTGA
TCCCGCCGGCGCAAAAAAAAAAAAAA
    
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5' Read Nucleotide Sequence:	>OriGene 5' read for BC016681 unedited GGTTACGATTTGTATACGACTTATATAGGCGGCCGACGATTCCCAGGATATCGTCGACCC ACGCGTCCGGACTAGTTCTAGATCGCGAGCGGCTGGGAGGGTGGGATGCCAGGGTTCT GAGAGGCAACGGGCTAGGGACTCGGACTTATGGTCTGGGGGAAGAGGACACAGCTAGA GAAGGAGTCTAGGGTCTAGAGGCAGGAGGGCTAAGCTAGGAGTCCAGGACTCCCAGAGG CGGAAACACGAGCCAGACCCGTGCCTGGAGCCAGCCCCGGCCCGGGTAGCCATGCC GAGCCTGCCATCCAACGGAGAGCTGGACCCCGACGTCTAGAGAGCATGGCATCACTGGG CTGCTTCAGGGACCGCGAGAGGCTGCATCGCGAGCTGCGCAGTGAGGAGGAGAACCAAGA AAAGATGATATATTATCTGCTTTTGATCGGAAGGAGCGGTATCCCAGCTGTGAGGACCA GGACCTGCCTCCCCGGAATGATGTTGACCCCCCGGAAGCGTGTGGATTCTCCCATGCT GAGTCGTACGGGAAGCGCGCACCAGAGCGGAAGTCCATGGAAGTCTGAGCATACCGA TGCCGGGGTGGTGGCTCCCCTGTACCCACACGACGGGGCCTGGAGATGGCCAGCACA GCCAGAGATCCCCTACCGTCAGTGGAGCCTCCACGGGTCTGTCTCCAGCCCTAAGCA GCCAANGNAGTCCGGTCTTTTCTTTTACCGNAACCCGGGGCTGGAGATGAGGCTCGA GGCGGGGGCTCCCCGACTTCCAAAACGCAGACGCTGCCCTTCTCGGGGCCCCAAGGGTG GGGGCGCCGGGAGCAACCCCGCCCAATGCCCGGTTACAAACCCCTGGCGGGGCC CCCAGGCTACCCGGGCTTCTCTGGGGGGAACCCTT
Restriction Sites:	Please inquire
ACCN:	BC016681
Insert Size:	4000 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:	<ol style="list-style-type: none"> 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:	BC016681.1 , AAH16681.1
RefSeq Size:	2128 bp
Locus ID:	84446
Cytogenetics:	19q13.42
Protein Families:	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]