

## Product datasheet for **RC234690**

### **BRSK2 (NM\_001256629) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	BRSK2 (NM_001256629) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	BRSK2
Synonyms:	C11orf7; PEN11B; SAD1; SADA; STK29
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide  
Sequence:**

>RC234690 representing NM\_001256629  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

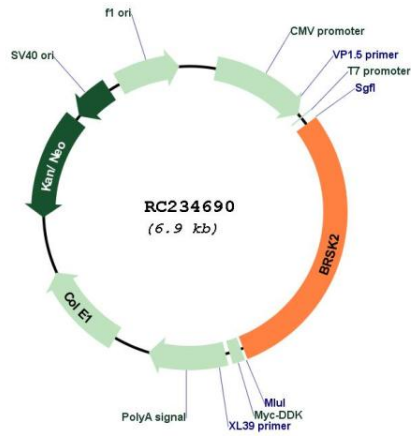
ATGACATCGACGGGAAGGACGGCGCGCGCAGCACGCGCAGTATGTTGGGCCCTACCGGTGGAGAAGA  
 CGCTGGGCAAGGGCAGACAGGTCTGGTGAAGCTGGGGTTCACTGCGTCACCTGCCAGAAGGTGGCCAT  
 CAAGATCGTCAACCGTGAGAAGCTCAGCGAGTCCGGTCTGATGAAGGTGGAGCGGGAGATCGCGATCCTG  
 AAGCTCATTGAGCACCCACGTCCTAAAGCTGCACGACGTTTATGAAAACAAAAATATTTGTACCTGG  
 TGCTAGAACACGTGTCAGGTGGTGGAGCTCTCGACTACCTGGTGAAGAAGGGGAGGCTGACGCCTAAGGA  
 GGCTCGGAAGTTCTCCGGCAGATCATCTCTGCGCTGGACTTCTGCCACAGCCACTCCATATGCCACAGG  
 GATCTGAAACCTGAAACCTCCTGCTGGACGAGAAGAACAACATCCGCATCGCAGACTTTGGCATGGCGT  
 CCCTGCAGTTGGCGACAGCCTGTTGGAGACCAGCTGTGGTCCCCCACTACGCCTGCCCGAGGTGAT  
 CCGGGGGGAGAAGTATGACGGCCGAAGGCGGACGTGTGGAGCTCGGGCGTCATCTGTTCGCTTGCTG  
 GTGGGGCTCTGCCCTTCGACGATGACAACCTTGCAGACGCTGCTGGAGAAGGTGAAGCGGGCGTGTTC  
 ACATGCCGCACCTTATCCCGCCGACTGCCAGAGTCTGCTACGGGGCATGATCGAGGTGGACGCCGACG  
 CCGCTCACGCTAGAGCACATTCAGAAACATATGGTATATAGGGGGCAAGAATGAGCCGAACCAGAG  
 CAGCCATTCTCGAAGGTGCAGATCCGCTCGCTGCCAGCCTGGAGGACATCGACCCGACGTGCTGG  
 ACAGCATGCACTCACTGGGCTGCTCCGAGACCGCAACAAGCTGCTGCAGGACCTGCTGTCCGAGGAGGA  
 GAACCAGGAGAAGATGATTTACTTCTCCTCTGGACCGAAAGAAAGGTACCCGAGCCAGGAGGATGAG  
 GACCTGCCCCCGGAACGAGATAGACCCTCCCCGGAAGCGTGTGGACTCCCCGATGCTGAACCGGCACG  
 GCAAGCGGCGCCAGAACGCAAATCCATGGAGGTGCTCAGCGTGACGGACGGCGGCTCCCCGGTGCCTGC  
 GCGGCGGGCCATTGAGATGGCCCAGCACGGCCAGAGGTCTCGGTCCATCAGCGGTGCTCCTCAGGCCTT  
 TCCACCAGCCACTCAGCAGCCCCGGGTGACCCCTACCCCTCACCAAGGGGCAGTCCCCCTCCCCACCC  
 CCAAGGGGACACCTGTCCACAGCCAAAGGAGAGCCGGCTGGCAGCCCAACCCACGCCCCCGTCCAG  
 CCCCAGCGTCGGAGGGGTGCCCTGGAGGGCGGGCTCAACTCCATCAAGAACAGCTTTCTGGGCTCACCC  
 CGTTCCACCGCCGAAACTGCAAGTCCGACGCCGAGGAGATGTCAAACCTGACACCAGAGTCGTCCC  
 CAGAGCTGGCGAAGAAGTCTGGTTTGGAACTTATCAGCCTGGAGAAGGAGGAGCAGATCTTCGTGGT  
 CATCAAAGACAAACCTCTGAGCTCCATCAAGGCTGACATCGTGCACGCCTTCTGTGATTCCCAGTCTC  
 AGCCACAGCGTCACTCCCAAACGAGCTTCCGGCCGAGTACAAGGCCACGGGGGGCCAGCCGTGTTCC  
 AGAAGCCGGTCAAGTTCAGGTTGATATCACCTACACGGAGGGTGGGGAGGCGCAGAAGGAGAACGCAT  
 CTACTCCGTACCTTACCCTGCTCTCAGGCCAGCCGTCGTTCAAGAGGGTGGTGGAGACCATCCAG  
 GCCAGCTGCTGAGCACACAGCCCGCTGCGGCCAGCACTTGTGAGAACCCCCCACCAGCGCCAG  
 GACTAAGCTGGGGTGTGGGCTTAAAGGGCCAGAAGGTGGCCACCAGCTACGAGAGTAGCCTC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA



<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_001256629.2</a>
<b>RefSeq Size:</b>	4140 bp
<b>RefSeq ORF:</b>	2025 bp
<b>Locus ID:</b>	9024
<b>UniProt ID:</b>	<a href="#">Q8IWQ3</a>
<b>Cytogenetics:</b>	11p15.5
<b>Protein Families:</b>	Druggable Genome, Protein Kinase
<b>MW:</b>	75.6 kDa
<b>Gene Summary:</b>	<p>Serine/threonine-protein kinase that plays a key role in polarization of neurons and axonogenesis, cell cycle progress and insulin secretion. Phosphorylates CDK16, CDC25C, MAPT/TAU, PAK1 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 postmitotic neurons, leading to down-regulate WEE1 activity in polarized neurons. Plays a role in the regulation of the mitotic cell cycle progress and the onset of mitosis. Plays a role in the regulation of insulin secretion in response to elevated glucose levels, probably via phosphorylation of CDK16 and PAK1. While BRSK2 phosphorylated at Thr-174 can inhibit insulin secretion (PubMed:22798068), BRSK2 phosphorylated at Thr-260 can promote insulin secretion (PubMed:22669945). Regulates reorganization of the actin cytoskeleton. May play a role in the apoptotic response triggered by endoplasmic reticulum (ER) stress.</p> <p>[UniProtKB/Swiss-Prot Function]</p>

Product images:



Circular map for RC234690