

## Product datasheet for MC214742

### Brsk1 (NM\_001168572) Mouse Untagged Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Brsk1 (NM\_001168572) Mouse Untagged Clone  
**Tag:** Tag Free  
**Symbol:** Brsk1  
**Synonyms:** Gm1100; SAD-B; SADB  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**Cell Selection:** Neomycin  
**Fully Sequenced ORF:** >MC214742 representing NM\_001168572  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCCGCGATCGCC

ATGTCGTCGGGTCCAAGGAAGGTGGCGGGGGCTCCCCGCCTACCACCTCCCACACCCACACCCACACC  
 CACCCAGCACGCCAATATGTGGGCCCTATCGCTGGAGAAGACGCTGGCAAAGGACAGACAGGTCT  
 AGTTAACTTGGAGTCCACTGCATCACGGGTGAGAAGGTCGCTGTCAAGATCGTGAACAGGGAGAAGCTG  
 TCGGAATCGGTGCTGATGAAGGTGGAGAGGAAAATCGCCATCCTGAAGCTCATTGAACACCCGACAGTGC  
 TCAAGCTCCACGACGCTACGAGAACAAGAAATATTTATACTTGGTTCTTGGTGGTGA  
 GCTGTTGACTACCTGGTAAAAAAGGGAGACTGACACCCAAGGAGGCCCGGAAGTTCTCCGCCAGATC  
 GTGTCAGCACTGGACTTCTGCCATAGCTACTCCATCTGTACAGAGACTTGAAGCCAGAGAACCTGCTGT  
 TGGATGAGAAAAACAACATCCGCATCGCAGACTTGGTATGGCGTCCCTGCAAGTGGGGGACAGCCTCCT  
 GGAGACCAGCTGCGGGTCCCCCATTACGCATGTCCAGAGGTGATCAAGGGGAAAAGTATGATGGCCG  
 CGGCAGACATGTGGAGCTGTGGAGTATCCTATTTGCCCTGCTGTGGGGGCACTGCCCTTCGATGACG  
 ACAACCTGCGCCAGCTACTGGAGAAGGTGAAACGTGGGGTCTTCCACATGCCTCACTTCACTCCAGAG  
 CTGCCAGAGCCTCCTGAGAGGATGATTGAAGTGGAGCCGAGAAAAGGCTCAGTCTGGAGCAAATTCAG  
 AAACATCCTTGGTATCTGGGCGGAAAACACGAACCAGACCCTTGCTGGAGCCAGCCCAGGCCGAGAG  
 TAGCCATGCGTAGCCTGCCTTCCAATGGCGAGCTGGACCCTGACGTTCTGGAAAGCATGGCGTCTTGG  
 CTGCTTACAGACCGCGAGCGGCTGCACAGAGAACTGCGAAGCGAGGAGTAA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Restriction Sites:** SgfI-MluI  
**ACCN:** NM\_001168572



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<b>Insert Size:</b>	1032 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>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>	<u><a href="#">NM_001168572.1</a></u> , <u><a href="#">NP_001162044.1</a></u>
<b>RefSeq Size:</b>	1391 bp
<b>RefSeq ORF:</b>	1032 bp
<b>Locus ID:</b>	381979
<b>UniProt ID:</b>	<u><a href="#">Q5RJI5</a></u>
<b>Cytogenetics:</b>	7 A1
<b>Gene Summary:</b>	<p>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-504' and 'Ser-554'. 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]</p> <p>Transcript Variant: This variant (2) differs in the 3' UTR and coding sequence compared to variant 1. The resulting isoform (2) is shorter at the C-terminus compared to isoform 1.</p>