

## Product datasheet for **MG220008**

### Brsk1 (NM\_001168572) Mouse Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Brsk1 (NM\_001168572) Mouse Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** Brsk1  
**Synonyms:** Gm1100; SAD-B; SADB  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >MG220008 representing NM\_001168572  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGTCGTCGGGTCCAAGGAAGGTGGCGGGGGCTCCCCGCCTACCACCTCCCACACCCACACCCACACC  
CACCCAGCACGCCAATATGTGGGCCCTATCGCCTGGAGAAGACGCTGGCAAAGGACAGACAGGTCT  
AGTTAACTTGGAGTCCACTGCATCACGGGTGAGAAGTCGCTGTCAAGATCGTGAACAGGGAGAAGCTG  
TCGGAATCGGTGCTGATGAAGGTGGAGAGGAAATCGCCATCCTGAAGCTCATTGAACACCCGCACGTGC  
TCAAGCTCCACGACGTCTACGAGAACAAGAAATATTTATACTTGGTTCTTGAGCACGTTTCTGGTGGTGA  
GCTGTTGACTACCTGGTAAAAAAGGGAGACTGACACCCAAGGAGGCCGGAAGTCTTCCGCCAGATC  
GTGTCAGCACTGGACTTCTGCCATAGCTACTCCATCTGTACAGAGACTTGAAGCCAGAGAACCTGCTGT  
TGGATGAGAAAAACAACATCCGCATCGCAGACTTGGTATGGCGTCCCTGCAAGTGGGGGACAGCCTCCT  
GGAGACCAGCTGCGGGTCCCCCATTACGCATGTCCAGAGGTGATCAAGGGGAAAGTATGATGGCCGC  
CGGCAGACATGTGGAGCTGTGGAGTATCCTATTTGCCCTGCTGTGGGGGCACTGCCCTTCGATGACG  
ACAACCTGCGCCAGCTACTGGAGAAGGTGAAACGTGGGGTCTCCACATGCCTCACTTATCCCTCCAGA  
CTGCCAGACCTCCTGAGAGGGATGATTGAAGTGGAGCCCGAGAAAAGGCTCAGTCTGGAGCAAATTCAG  
AAACATCCTTGGTATCTGGCGGGAAACACGAACCAGACCTTGCCTGGAGCCAGCCAGGCCGCGCAGAG  
TAGCCATGCGTAGCCTGCCCTCCAATGGCGAGCTGGACCCTGACGTTCTGAAAGCATGGCGTCTCTGGG  
CTGCTTACAGACCCGCGAGCGGCTGCACAGAGAACTGCGAAGCGAGGAG

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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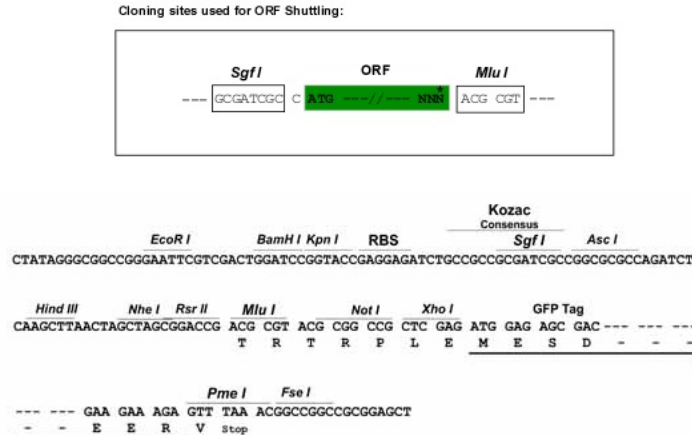
**Protein Sequence:** >MG220008 representing NM\_001168572  
 Red=Cloning site Green=Tags(s)

MSSGSKEGGGGSPAYHLPHPHPPQHAQYVGPYRLEKTLGKGQTGLVKLGVHCITGQKVAVKIVNREKL  
 SESVLMKVEREIAILKLIEHPHVLKLDVYENKKYLYLVLEHVSGGELFDYLVKKGRITPKEARKFFRQI  
 VSALDFCHSYSICHRDLKPENLLLDEKNNIRIADFGMASLQVGDLSLETSCGSPHYACPEVIKGEKYDGR  
 RADMWSCGVILFALLVGALPFDDNLRQLLEKVKRGVFMHPHFIPPDCQSLLRGMIEVEPEKRLSLEIQ  
 KHPWYLGKHEPDPCLEPAPGRRVAMRSLPSNGELDPDVLESMASLGCFRDRERLHREL RSEE

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001168572

**ORF Size:** 1029 bp

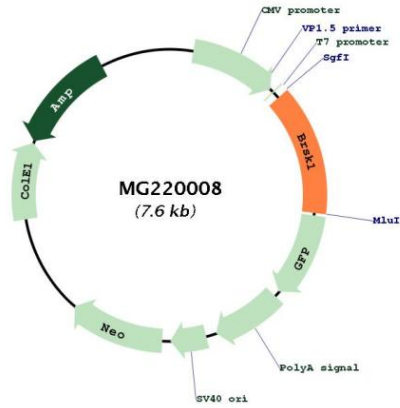
**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

**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).

<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_001168572.1</a> , <a href="#">NP_001162044.1</a>
<b>RefSeq Size:</b>	1391 bp
<b>RefSeq ORF:</b>	1032 bp
<b>Locus ID:</b>	381979
<b>UniProt ID:</b>	<a href="#">Q5RJI5</a>
<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>

Product images:



Circular map for MG220008