

Product datasheet for **MR220008**

Brsk1 (NM_001168572) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Brsk1 (NM_001168572) Mouse Tagged ORF Clone
Tag: Myc-DDK
Symbol: Brsk1
Synonyms: Gm1100; SAD-B; SADB
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >MR220008 representing NM_001168572
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGC**C

ATGTCGTCGGGTCCAAGGAAGGTGGCGGGGGCTCCCCGCCTACCACCTCCCACACCCACACCCACACC
 CACCCAGCAGCCCAATATGTGGGCCCTATCGCCTGGAGAAGACGCTGGCAAAGGACAGACAGGTCT
 AGTTAAACTTGGAGTCCACTGCATCACGGGTGAGAAGGTCGCTGTCAAGATCGTGAACAGGGAGAAGCTG
 TCGGAATCGGTGCTGATGAAGGTGGAGAGGAAATCGCCATCCTGAAGCTCATTGAACACCCGCACGTGC
 TCAAGCTCCACGACGTCTACGAGAACAAGAAATATTTATACTTGGTTCTTGAGCACGTTTCTGGTGGTGA
 GCTGTTGACTACCTGGTAAAAAAGGGAGACTGACACCCAAGGAGGCCGGAAGTCTTCCGCCAGATC
 GTGTCAGCACTGGACTTCTGCCATAGCTACTCCATCTGTACAGAGACTTGAAGCCAGAGAACCTGCTGT
 TGGATGAGAAAAACAACATCCGCATCGCAGACTTTGGTATGGCGTCCCTGCAAGTGGGGGACAGCCTCCT
 GGAGACCAGCTGCGGGTCCCCCATTACGCATGTCCAGAGGTGATCAAGGGGAAAAGTATGATGGCCGC
 CGGGCAGACATGTGGAGCTGTGGAGTATCCTATTTGCCCTGCTGTGGGGGCACTGCCCTTCGATGACG
 ACAACCTGCGCCAGCTACTGGAGAAGGTGAAACGTGGGGTCTTCCACATGCCTCACTTATCCCTCCAGA
 CTGCCAGACCTCCTGAGAGGGATGATTGAAGTGGAGCCCGAGAAAAGGCTCAGTCTGGAGCAAATTCAG
 AAACATCCTTGGTATCTGGCGGGAAACACGAACCAAGCCCTTGCCTGGAGCCAGCCAGGCCGAGAG
 TAGCCATGCGTAGCCTGCCCTTCCAATGGCGAGCTGGACCTGACGTTCTGAAAGCATGGCGTCTCTGGG
 CTGCTTACAGACCCGCGAGCGGCTGCACAGAGAACTGCGAAGCGAGGAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >MR220008 representing NM_001168572
Red=Cloning site Green=Tags(s)

MSSGSKEGGGGSPAYHLPHPHPPQHAQYVGPYRLEKTLGKGQTGLVKLGVHCITGQKVAVKIVNREKL
 SESVLMKVEREIAILKLIEHPHVLKLDVYENKKYLYLVLEHVS GGELFDYL VKKGR LTPKEARKFFRQI
 VSALDFCHSYSICHRDLKPENLLLDEKNNIRIADFGMASLQVGSLLLETSCGSPHYACPEVIKGEKYDGR
 RADMWSCGVILFALLVGALPFDDNLRQLLEKVKRGVFMHPHFIPPDCQSLLRGMIEVEPEKRLSLEIQI
 KHPWYLGKHEPDPCLEPAPGRRVAMRSLPSNGELDPDVLESMASLGCFRDRERLHREL RSEE

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_001168572

ORF Size: 1029 bp

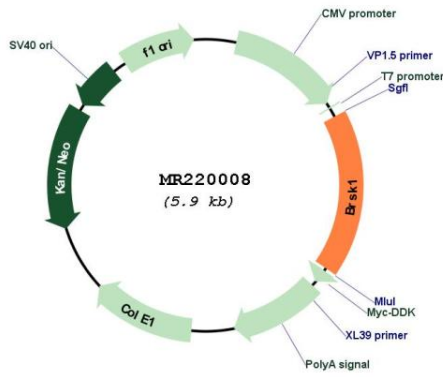
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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).

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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_001168572.1 , NP_001162044.1
RefSeq Size:	1391 bp
RefSeq ORF:	1032 bp
Locus ID:	381979
UniProt ID:	Q5RII5
Cytogenetics:	7 A1
MW:	39.2 kDa
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-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]

Product images:



Circular map for MR220008