

Product datasheet for **RN210211**

Brsk1 (NM_001127337) Rat Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Brsk1 (NM_001127337) Rat Untagged Clone
Tag:	Tag Free
Symbol:	Brsk1
Synonyms:	RGD1563268; Sad-b
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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Fully Sequenced ORF: >RN210211 representing NM_001127337
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGTCGTCGGGTCCAAGGAAGGTGGCGGGGCTCCCCGCCTACCACCTCCCACACCCACACCCACACC
 CACCCCAGCACGCCAATATGTGGGCCCTATCGGCTGGAGAAGACGCTGGGCAAAGGACAGACAGGTCT
 AGTTAAACTTGGGGTCCACTGCATCACGGTCAGAAGGTCGCTGTCAAGATCGTGAACAGGGAGAAGCTG
 TCGGAATCTGTGCTGATGAAGGTGGAGAGGGAAATCGCCATTCTAAAGCTCATTGAACACCCGCATGTGC
 TCAAGCTCCACGACGTCTACGAGAACAAGAAATATTTATACTTGGTGCTTGGCATGTTTCTGGTGGTGA
 GCTGTTGACTACCTGGTAAAAAAGGGAGACTGACACCCAAGGAGGCCGAAAGTTCTTCCGCCAGATT
 GTGTCAGCGCTGGACTTCTGCCATAGCTACTCCATCTGTCACAGGGACCTGAAGCCAGAGAACCTGCTGC
 TGGATGAGAAAAACAACATCCGCATCGCAGACTTTGGCATGGCGTCCCTGCAGGTGGGGGACAGCCTCCT
 GGAGACCAGCTGTGGTCCCCCATTACGCATGTCCAGAGGTGATCAAGGGGAGAAGTATGATGGCCGC
 CGGGCAGACATGTGGAGCTGTGGAGTATCCTGTTTGGCCCTGCTTGTGGGGGCGCTGCCCTTCGATGATG
 ACAACCTACGACAGCTACTAGAGAAGGTGAAACGTGGTGTCTTCCACATGCCGCACCTTCATCCCTCCAGA
 CTGCCAGAGCCTCCTGAGAGGGATGATTGAAGTGGAGCCCAGAAAAGGCTCAGTCTGGAGCAAATTCAG
 AAACATCCTTGGTATCTGGGCGGAAACACGAACCAGACCCTTGCTGGAGCCAGCCCAGGCCGAGAG
 TAGCTATGCGGAGCCTGCCTTCCAATGGCGAGCTGGACCTGACGTTCTGGAAAGCATGGCGTCTCTGGG
 CTGCTTACAGACCGGAGCGGTACACAGAGAAGTGGAAAGTGAAGGAGGAAAACCAAGAAAAGATGATC
 TATTATTTGCTTTTGGATCGGAAAGAGCGGTACCCTAGCTGTGAAGACCAGGACCTGCCTCCTCGGAATG
 ATGTTGACCCACCTCGGAAGCGTGTGGATTCCCCATGCTGAGCAGACACGGGAAACGGAGGCCAGAGCG
 GAAGTCCATGGAAGTCCTCAGCATCACAGATGCTGGGAGTGGTGGCTCTCCAGTGCCTACCAGAAGGGCC
 TTGGAGATGGCCAGCACAGTCAGAGATCCCGCAGCGTCAAGTGGAGCATCCACTGGTCTGTCTCCAGCC
 CTCTAAGCAGCCCAAGGAGTCCGGTCTTTTCTTCTCACCGGAGCCAGGCGTTGGAGATGAGGCTAGAGG
 TGGAGGCTCCCCAACTTCCAAAACACAGACGCTGCCTTCTCGGGGCCAGAGGTGGGGGCGCTGGAGAG
 CAGCCACCACCTCCAGTGCCCGTTCACGCCCTTGCTGGACCACCAGGCTCCCCGCGCTCCTCCGGCG
 GAACCCCTTGCCTCACCTCTGCACACGCTCGAGCCAGCCCTACCGGGACTCCAGGAACACACCACC
 TCCAGCCAGGCGGTGGCGTGGGGGAGCCGCTGGAGAAGTCGCTCAACTCCATCCGCAACAGCTTC
 CTGGGCTCCCCTCGTTCACCGGCGCAAGATGCAGGTCCCTACCGCTGAGGAGATGTCCAGTTTGACAC
 CAGAATCCTCTCCAGAGCTGGCAAACGCTCCTGGTTCGGGAATTCATCTCCTTGGACAAAAGAACA
 AATATTCCTCGTGCTAAAGGACAAACCTCTCAGCAGCATCAAAGCGGACATTGTCCATGCCTTTCTGTG
 ATCCCTAGCCTGAGTCACAGTGTGCTGTACAGACCAGCTTCAGGGCCGAATACAAGGCCAGCGGTGGCC
 CCTCTGTCTTCCAGAAGCCTGTCCGCTTCCAGGTGGACATCAGCTCCTCTGAGGGTCCAGAACCCTCACC
 CCGAAGAGATGGTAGCAGTGGAGGTGGCATCTACTCAGTCACCTTCACTCTATCTCCGGTCTAGCCGT
 CGGTTCAAGCGTGTGGTAGAGACCATCCAGGCACAGTTGCTGAGTACTCATGACCAGCCCTCCGTGCAGG
 CCTTGGCAGATGAGAAGAATGGAGCCAGACCCGGCTGCTGGTACCCACCCCGAAGCCTGCAGCCTCC
 ACCAGGCCGCCCTGACCCTGATCTGAGTAGCTCTCCCCGCGAGGACCCTTAAGGACAAGAAGCTCCTG
 GCCACCAATGGAACCCCTTACCCTGA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: Sgfl-Mlul
ACCN: NM_001127337
Insert Size: 2337 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:	NM_001127337.1 , NP_001120809.1
RefSeq Size:	2442 bp
RefSeq ORF:	2337 bp
Locus ID:	499073
UniProt ID:	B2DD29
Cytogenetics:	1q12
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-523' and 'Ser-573'. 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. 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 (By similarity). In neurons, localizes to synaptic vesicles and plays a role in neurotransmitter release, possibly by phosphorylating RIMS1.[UniProtKB/Swiss-Prot Function]