

Product datasheet for **SC323282**

BRG1 (SMARCA4) (NM_001128848) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	BRG1 (SMARCA4) (NM_001128848) Human Untagged Clone
Tag:	Tag Free
Symbol:	SMARCA4
Synonyms:	BAF190; BAF190A; BRG1; CSS4; hSNF2b; MRD16; RTPS2; SNF2; SNF2-beta; SNF2L4; SNF2LB; SWI2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

Fully Sequenced ORF: >OriGene ORF sequence for NM_001128848 edited
 ATGTCCACTCCAGACCCACCCCTGGGCGGAACCTCGGCCAGGTCCTTCCCCGGGCCCT
 GGCCCTTCCCCTGGAGCCATGCTGGGCCCTAGCCCGGGTCCCTCGCCGGGCTCCGCCAC
 AGCATGATGGGGCCAGCCAGGGCCGCTCAGCAGGACACCCATCCCACCCAGGGG
 CCTGGAGGGTACCCTCAGGACAACATGCACCAGATGCACAAGCCATGGAGTCCAT
 GAGAAGGGCATGTCGGACGACCCGCGCTACAACCAGATGAAAGGAATGGGGATGCGGTCA
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 TCGGGGCCAGATGTCTTCCGGGCCAGGAGGTGCCCGCTGGATGGTGTGACCCCCAG
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 AAGATCGAGCAGGAGCGCAAGCGCCGCGCAGAAGCACCAGGAATACCTCAATAGCATTCTC
 CAGCATGCCAAGGATTTCAAGGAATATCACAGATCCGTACAGGCCAAAATCCAGAAGCTG



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ACCAAGGCAGTGGCCACGTACCATGCCAACACGGAGCGGGAGCAGAAGAAAGAGAACGAG
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 CCCGAGTACTACGAGCTCATCCGCAAGCCCGTGGACTTCAAGAAGATAAAGGAGCGCATT
 CGCAACCACAAGTACCGCAGCCTCAACGACCTAGAGAAGGACGTATGCTCCTGTGCCAG
 AACGCACAGACCTTAACTGGAGGGCTCCCTGATCTATGAAGACTCCATCGTCTTGAG
 TCGGTCTTACCAGCGTGGCGCAGAAAATCGAGAAGGAGGATGACAGTGAAGCGGAGGAG

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AGTGAGGAGGAGGAAGAGGGCGAGGAGGAAGGCTCCGAATCCGAATCTCGGTCCGTCAA  
GTGAAGATCAAGCTTGGCCGGAAGGAGAAGGCACAGGACCGGCTGAAGGGCGCCGGCGG  
CGGCCGAGCCGAGGGTCCCGAGCCAAGCCGGTCGTGAGTGACGATGACAGTGAGGAGGAA  
CAAGAGGAGGACCGCTCAGGAAGTGGCAGCGAAGAAGACTGA
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Restriction Sites:	Please inquire
ACCN:	NM_001128848
Insert Size:	5400 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).
OTI Annotation:	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
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:	<u>NM_001128848.1</u> , <u>NP_001122320.1</u>
RefSeq Size:	5317 bp
RefSeq ORF:	4842 bp
Locus ID:	6597
UniProt ID:	<u>P51532</u>
Cytogenetics:	19p13.2
Protein Families:	Druggable Genome, Transcription Factors

Gene Summary:

The protein encoded by this gene is a member of the SWI/SNF family of proteins and is similar to the brahma protein of *Drosophila*. Members of this family have helicase and ATPase activities and are thought to regulate transcription of certain genes by altering the chromatin structure around those genes. The encoded protein is part of the large ATP-dependent chromatin remodeling complex SNF/SWI, which is required for transcriptional activation of genes normally repressed by chromatin. In addition, this protein can bind BRCA1, as well as regulate the expression of the tumorigenic protein CD44. Mutations in this gene cause rhabdoid tumor predisposition syndrome type 2. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, May 2012]

Transcript Variant: This variant (7) lacks two alternate in-frame exons and uses an alternate splice site in the 3' coding region, compared to variant 1. The 5' UTR splice pattern has not been determined. The resulting protein (isoform F), also known as isoform 3, is shorter than isoform A.