

Product datasheet for **RG226420**

BRG1 (SMARCA4) (NM_001128849) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	BRG1 (SMARCA4) (NM_001128849) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	BRG1
Synonyms:	BAF190; BAF190A; BRG1; CSS4; hSNF2b; MRD16; RTPS2; SNF2; SNF2-beta; SNF2L4; SNF2LB; SWI2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG226420 representing NM_001128849 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**GCGATCGCC**

ATGTCCACTCCAGACCCACCCCTGGGCGGAACTCCTCGGCCAGGTCTTCCCCGGGCCCTGGCCCTTCCC
CTGGAGCCATGCTGGGCCTAGCCCGGGTCCCTCGCCGGGCTCCGCCACAGCATGATGGGGCCAGCCC
AGGGCCGCCCTCAGCAGGACACCCCATCCCCACCCAGGGGCTGGAGGGTACCCTCAGGACAACATGCAC
CAGATGCACAAGCCCATGGAGTCCATGCATGAGAAGGGCATGTCGGACGACCCGCGCTACAACCAGATGA
AAGGAATGGGGATGCGGTGAGGGGCCATGCTGGGATGGGGCCCCCGCCAGCCCATGGACCAGCACTC
CCAAGGTTACCCCTCGCCCTGGGTGGCTCTGAGCATGCCTCTAGTCCAGTTCAGCCAGTGCCCGTCT
TCGGGGCCCCAGATGTCTTCCGGGCCAGGAGGTGCCCCGCTGGATGGTGTGACCCCGAGCCTTGGGGC
AGCAGAACCAGGGCCCAACCCCATTTAACCAGAACCAGCTGCACCAGCTCAGAGCTCAGATCATGGCCTA
CAAGATGTCTGGCCAGGGGCGAGCCCTCCCCGACCACCTGCAGATGGCGGTGCAGGGCAAGCGGCCGATG
CCCGGGATGCAGCAGCAGATGCCAACGCTACCTCCACCCTCGGTGTCCGCAACAGGACCCGGCCCTGGCC
CTGGCCCTGGCCCCGGCCCGGGTCCCGGCCCGGCACCTCCAAATTACAGCAGGCCATCATGGTATGGGAGG
GCCCAACATGCCTCCCCAGGACCTCGGGCGTCCCCCGGGATGCCAGGCCAGCCTCCTGGAGGGCCT
CCCAAGCCCTGGCCTGAAGGACCCATGGCGAATGCTGTGCCCCACGAGCACCCCTCAGAAGCTGATTC
CCCCGACGCCAACGGGCCGCCCTTCCCCCGGCCCTTCCCGTCCACCCCGCCCTCGCCCGTGTGCC
ACCGCAGACCCAGTCCCCGGGACGCCGGCCAGCCCGGCCCATGGTGCCACTGCACCAGAAGCAGAGC
CGCATCACCCCATCCAGAAGCCGCGGGCCCTCGACCCTGTGGAGATCCTGCAGGAGCGGAGTACAGGC
TGCAAGGCTCGCATCGCACACCGAATTGAGAACTTGAACCTTCCCGGGTCCCTGGCCGGGATTTGCG
AACCAAGCGACCATGAGCTCAAGGCCCTCAGGCTGCTGAACCTCCAGAGGCAGCTGCGCCAGGAGGTG
GTGGTGTGCATGCGGAGGGACACAGCGCTGGAGACAGCCCTCAATGCTAAGGCCCTACAAGCGCAGCAAGC
GCCAGTCCCTGCGGAGGCCCGCATCACTGAGAAGCTGGAGAAGCAGCAGAAGATCGAGCAGGAGCGCAA



GCGCCGGCAGAAGCACCAGGAATACCTCAATAGCATTCTCCAGCATGCCAAGGATTTCAAGGAATATCAC
 AGATCCGTACAGGCAAAATCCAGAAGCTGACCAAGGCAGTGGCCACGTACCATGCCAACACGGAGCGGG
 AGCAGAAGAAAGAGAACGAGCGGATCGAGAAGGAGCGCATGCGGAGGCTCATGGCTGAAGATGAGGAGGG
 GTACCGCAAGCTCATCGACCAGAAGAAGGACAAGCGCCTGGCCTACCTCTTGACAGACAGACGAGTAC
 GTGGCTAACCTCACGGAGCTGGTGGCCAGCACAAGGCTGCCAGGTGCCAAGGAGAAAAAGAAAA
 AGAAAAAGAAGAAGGCAGAAAAATGCAGAAGGACAGACGCCTGCCATTGGGCCGGATGGCAGCCTCTGGA
 CGAGACCAGCCAGATGAGCGACCTCCCGGTGAAGGTGATCCACGTGGAGAGTGGGAAGATCCTCACAGG
 ACAGATGCCCCCAAGCCGGGCAGCTGGAGGCCTGGCTCGAGATGAACCCGGGGTATGAAGTAGCTCCGA
 GGTCTGATAGTGAAGAAAGTGGCTCAGAAGAAGAGGAAGAGGAGGAGGAAGAGCAGCCGAGGCAGC
 ACAGCCTCCCACCCTGCCGTGGAGGAGAAGAAGAAGATTCCAGATCCAGACAGCGATGACGTCTCTGAG
 GTGGACGCGCGGCACATCATTGAGAATGCCAAGCAAGTGTGATGATGAATATGGCGTGTCCAGGCC
 TTGACAGTGGCCTGCAGTCTACTATGCCGTGGCCATGCTGTCAGTGGAGAGTGGACAAGCAGTCAAG
 GCTTATGGTCAATGGTGTCTCAAACAGTACCAGATCAAAGGTTTGGAGTGGCTGGTGTCCCTGTACAAC
 AACACCTGAACGGCATCCTGGCCGACGAGATGGGCTGGGAAGACCATCCAGACCATCGCGCTCATCA
 CGTACCTCATGGAGCACAACGCATCAATGGGCCCTTCTCATCATCGTGCCTCTCTCAAGCTGTCCAA
 CTGGGCGTACGAGTTTGACAAGTGGGCCCTCCGTGGTGAAGGTGCTTACAAGGGATCCCCAGCAGCA
 AGACGGGCCTTTGTCCCCAGCTCCGGAGTGGGAAGTTCAACGTCTTGCTGACGACGTACGAGTACATCA
 TCAAAGACAAGCACAATCCTCGCCAAGATCCGTTGGAAGTACATGATTGTGGACGAAGTCAACGCATGAA
 GAACCACCACTGCAAGCTGACGCAGGTGCTCAACACGCACTATGTGGACCCCCGCGCCTGCTGTGACG
 GGCACACCGCTGCAGAACAAGCTTCCGAGCTCTGGGCGTGTCAACTTCTGTGCCACCATCTTCA
 AGAGCTGCAGCACCTTCGAGCAGTGGTTAACGCACCCCTTCCATGACCGGGGAAAAGGTGGACCTGAA
 TGAGGAGGAAACCATTCTCATCATCCGGCGTCTCCAAAAGTGTGCGGCCCTTCTTGTCCGACGACTC
 AAGAAGGAAGTGCAGGCCAGTTGCCGAAAAGTGGAGTACGTATCAAGTGGCAGATCTGTCCGCTGC
 AGCGAGTGTCTACCGCCACATGCAAGGCCAAGGGCGTGTGCTGACTGATGGCTCCGAGAAGGACAAGAA
 GGGCAAAGGGCGCACCAAGACCCTGATGAACACCATCATGCAAGTGGGAAGATCTGCAACCACCCCTAC
 ATGTTCCAGCACATCGAGGAGTCTTTTCCGAGCACTTGGGGTCACTGGCGCATTGTCCAAGGGCTGG
 ACCTGTACCGAGCCTCGGGTAAATTTGAGCTTCTTGATAGAATCTTCCAAAACCTCCGAGCAACCAACCA
 CAAAGTGTGCTGTTCTGCCAATGACCTCCCTCATGACCATCATGGAAGATTACTTTGCGTATCGCGGC
 TTTAAATACCTCAGGCTTGATGGAACCACGAAGGCGGAGGACCGGGCATGCTGTGAAAACCTTCAACG
 AGCCCGGCTCTGAGTACTTCTCTGCTCAGCACCCGGGCTGGGGGCTCGGCTGAACCTCCAGTC
 GGCAGACACTGTGATCATTTTTGACAGCGACTGGAATCCTCACCAGGACCTGCAAGCGCAGGACCGAGCC
 CACCGCATCGGGCAGCAGAACGAGGTGCGTGTGCTCCGCCTCTGCACCGTCAACAGCGTGGAGGAGAAGA
 TCCTAGCTGCAGCCAAGTACAAGCTCAACGTGGACCAGAAGGTGATCCAGGCCGGCATGTTGACACGAA
 GTCCTCCAGCCATGAGCGGCGCGCCTTCTGCAGGCCATCCTGGAGCACGAGGAGCAGGATGAGAGCAGA
 CACTGCAGCACGGGCAGCGGCAGTGCCAGCTTCGCCACACTGCCCTCCGCCAGCGGGCGTCAACCCCG
 ACTTGGAGGAGCCACCTTAAAGGAGGAAGACGAGGTGCCCGACGACGAGACCGTCAACCAGATGATCGC
 CCGGCACGAGGAGGAGTTTATCTGTTTATGCGCATGGACCTGGACCGCAGGCGGAGGAGGCCGCAAC
 CCCAAGCGGAAGCCGCGCCTCATGGAGGAGGACGAGTCCCCTCGTGGATCATCAAGGACGACGCGGAGG
 TGGAGCGGCTGACCTGTGAGGAGGAGGAGAGAAGATGTTGCGCGTGGCTCCCGCCACCGCAAGGAGGT
 GGACTACAGCGACTCACTGACGGAGAAGCAGTGGCTCAAGAAAATTACAGGAAAAGATATCCATGACACA
 GCCAGCAGTGTGGCACGTGGGCTACAATTCAGCGTGGCCTTCACTTCTGCACACGTGCGTCAAAGGCCA
 TCGAGGAGGGCACGCTGGAGGAGATCGAAGAGGAGTCCGGCAGAAGAAATCATCACGGAAGCGCAAGCG
 AGACAGCGACGCCGGCTCCTCCACCCCGACCACCAGCACCCGAGCCGCGACAAGGACGACGAGAGCAAG
 AAGCAGAAGAAGCGGGCGGCCCTGCCGAGAACTCTCCCTAACCCACCAACCTCACCAAGAAGA
 TGAAGAAGATTGTGGATGCCGTGATCAAGTACAAGGACAGCAGCAGTGGACGTGAGTCAAGTCAAGGAGTCTT
 CATCCAGTGCCTCGCAGAAAGGAGTGCCTGAGTACTACGAGCTCATCCGCAAGCCGTGGACTTCAAG
 AAGATAAAGGAGCGCATTGCAACCAAGTACCGCAGCCTCAACGACCTAGAGAAGGACGTGATGCTCC
 TGTGCCAGAACGCACAGACCTTCAACCTGGAGGGCTCCCTGATCTATGAAGACTCCATCGTCTTGACGTC
 GGTCTTACCAGCGTGGCGCAGAAAATCGAGAAGGAGGATGACAGTGAAGGCGAGGAGAGTGAAGGAGG
 GAAGAGGGCGAGGAGGAAGGCTCCGAATCCGAATCTCGGTCCGTCAAAGTGAAGATCAAGCTTGGCCGGA
 AGGAGAAGGCACAGGACCGGCTGAAGGGCGGCCGGCGGCGGCGGAGCCGAGGGTCCCAGCCAAAGCCGGT
 CGTGAAGTACGATGACAGTGAAGGAGGAACAAGAGGAGGACCGCTCAGGAAGTGGCAGCGAAGAAGAC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG226420 representing NM_001128849
 Red=Cloning site Green=Tags(s)

MSTPDPPLGGTPRPGSPGPGSPGAMLGPSGPGSPGSAHSMGPGSPGPPSAGHP IPTQGGYDQNMH
 QMHKPMESMHEKMSDDPRYNQMKGMGRSGGHAGMPPSPMDQHSQGYPSPLGGSEHASSVPASGSP
 SGPQMSSGPGGAPLDGADPQALGQQNRGPTPFNQNLHLQRAQIMAYKMLARGQPLPDHLQMAVQGKRP
 PGMQQQMPPLPPSVSATGPGPGPGPGPGPGPAPPNYSRPHGMGGPNMPPGPGSGVPPGMPGQPPGGP
 PKPWPEGPMANAAAPTSTPQKLIPPQPTGRPSPAPPVPPAASPVMPPQTQSPGQPAQPAPMVPLHQKQS
 RITPIQKPRGLDPVEILQEREYRLQARIAHRIQELENLPGSLAGDLRTKATIELKALRLLNFQRQLRQEV
 VVCMRRDTALETALNAKAYKRKRQSLREARITEKLEKQKQIEQERKRRQKHQEYLSILQHAQDFKEYH
 RSVTGKIQKLTAKAVATYHANTEREQKENERIEKERMRLMAEDEEGYRKLIDQKKDKRLAYLLQQTDEY
 VANLTELVRQHKAQVAKEKKKKKKKAENAEGQTPAIGPDGEPLDETSQMSDLPVKVIHVESGKILTG
 TDAPKAGQLEAWLEMNPGYEVAPRSDSEESGSEEEEEEEEEEQPAAQPPTLPVEEKKKIPDPSDDVSE
 VDARHIIENAKQDVDEYGVSQLARGLQSYAVAHAVTERVDKQSA LMVNGVLKQYQIKGLEWLVSLYN
 NNLNGILADEMGLGKTIQTIALITYLMEHKRINGPFLIIVPLSTLSNWAYEFDKWAPSVVKVSYKGPAA
 RRAFVPLRSGKFNVLTTYEYIIKDKHILAKIRWKYMI VDEGHRMKNHHCKLTQVLNTHYVAPRLLLT
 GTPLQNKLPPELLNLLPTIFKSCSTFEQWFNAPFAMTGEKVDLNEEETILIRRLHKVLRPFLRLR
 KKEVEAQLPEKVEYVIKCDMSALQ RVL YRHMQAKGVLLTDGSEKDKKGGTKL MNTIMQLRKICNHPY
 MFQHIIEESFSEHLGFTGGIVQGLDLYRASGKFELLDRI LPKLRATNHKVLVFCQMTSLMTIMEDYFAYRG
 FKYLRLDGTTKAEDRGMLLKT FNEPGSEYIFLLSTRAGLGLNLQSADTVIIFDSDWNPHQDLQAQDRA
 HRIGQQNEVRVLR LCTVNSVEEKILAAAKYKLNVDQKVIQAGMFDQKSSSHERRAFLQAI LEHEEQDES
 HCSTGSGSASFHTAPPAGVNPDL EEPPLKEEDEVPDDET VNM IARHEEEFDL FMRMDLDRRREARN
 PKRKPRLMEDELPSWIIKDDAEVERL TCEEEEEKMFGRGSRHRKEVDYSDSLTEKQWLKKTIGKDIHDT
 ASSVARGLQFQRGLQFCTRASKAIEEGTLEEIEEEV RQKSSRKRKRDS DAGSSTPTTSTRSRDKDDESK
 KQKRRGRPPAEKLSNPNPNTKKMKKIVDAVIKYKDS SGRQLSEVFIQLPSRKE LPEYELIRKPVDFK
 KIKERIRNHKYRSLNDLEKDVMLLCQNAQTFNLEGLIYEDSIVLQSVF TSVRQKIEKEDDSEGESEEE
 EEEEEGESESESRVVKIKLGRKEKAQDRLKGGRRRPSRGRAPVVSDDDSEEEQEEDRS GSGSSEED

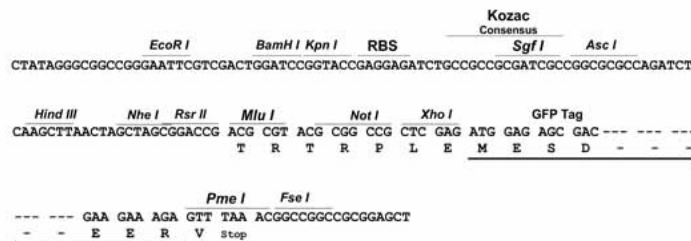
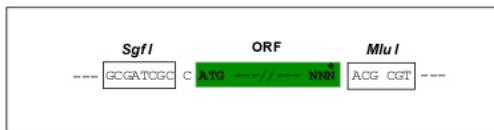
TRTRPLE - GFP Tag - V

Restriction Sites:

SgfI-MluI

Cloning Scheme:

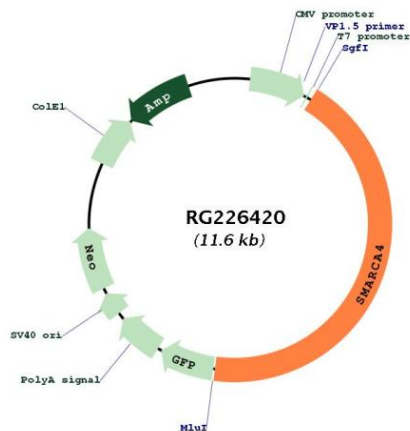
Cloning sites used for ORF Shutting:



ACCN:	NM_001128849
ORF Size:	5037 bp
OTI Disclaimer:	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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</p>
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.
RefSeq:	NM_001128849.3
RefSeq Size:	5589 bp
RefSeq ORF:	5040 bp
Locus ID:	6597
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]

Product images:


Circular map for RG226420