

## Product datasheet for RC226411

### BRG1 (SMARCA4) (NM\_001128847) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	BRG1 (SMARCA4) (NM_001128847) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	SMARCA4
Synonyms:	BAF190; BAF190A; BRG1; CSS4; hSNF2b; MRD16; RTPS2; SNF2; SNF2-beta; SNF2L4; SNF2LB; SWI2
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>RC226411 representing NM_001128847 Red=Cloning site Blue=ORF Green=Tags(s)

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**Protein Sequence:** >RC226411 representing NM\_001128847  
 Red=Cloning site Green=Tags(s)

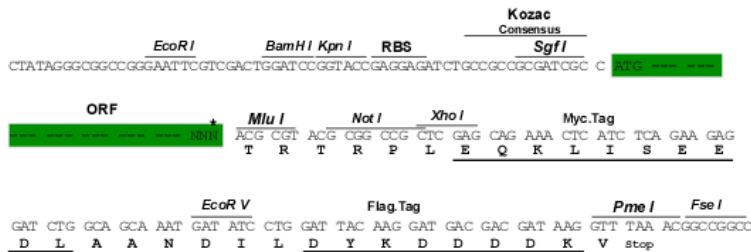
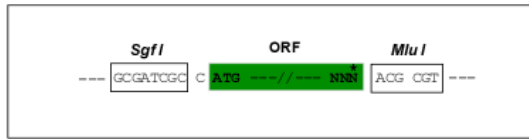
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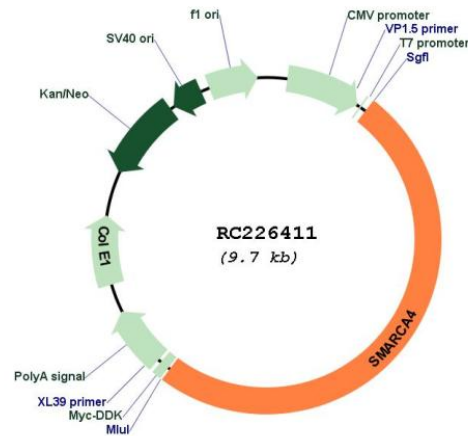
**Restriction Sites:**  
**Cloning Scheme:**

SgfI-MluI

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**Plasmid Map:**


**ACCN:** NM\_001128847

**ORF Size:** 4842 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:**

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\\_001128847.4](#)

**RefSeq ORF:** 4845 bp

**Locus ID:** 6597

UniProt ID: [P51532](#)

Cytogenetics: 19p13.2

Protein Families: Druggable Genome, Transcription Factors

MW: 181.2 kDa

**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]