

Product datasheet for **MG225556**

Smarchb1 (NM_001161853) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Smarchb1 (NM_001161853) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Smarchb1
Synonyms:	AU020204; Baf47; Ini1; Snf5; SNF5/INI1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG225556 representing NM_001161853 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGC**

ATGATGATGATGGCGTTGAGCAAGACCTTCGGGCAGAAGCCCGTCAAGTTTCAGCTGGAGGACGACGGGG
 AGTTCTACATGATCGGCTCCGAGGTGGGAACTACCTGCGTATGTTCCGAGGTTCTCTGTACAAGAGATA
 CCCCTCACTCTGGCGGCGACTAGCCACTGTGGAAGAAAGGAAGAAATAGTGGCATCGTCACATGATCAT
 GGATATACCACCCTGGCCACCAGCGTGACACTCCTGAAAGCCTCAGAGGTAGAAGAGATCCTGGATGGCA
 ATGACGAGAAGTACAAGGCTGTGTCCATCAGCACAGAGCCCCGACCTACCTCAGGGAGCAGAAGGCCAA
 GAGGAACAGCCAGTGGGTCCCCACCCTGCCAACAGCTCCCACCACCTGGATGCTGTGCCCTGTTCCACC
 ACCATCAACAGGAACCGCATGGGTGGGACAAGAAGAGAACCTTCCCCTTGCTGCTTTGATGACCAGACC
 CAGCTGTGATCCATGAGAATGCGTCACAGCCTGAGGTGCTGGTGCCCATCCGGCTCGACATGGAGATCGA
 CGGGCAGAAGCTGCGAGACGCTTTTACCTGGAACATGAATGAGAAGCTAATGACTCCTGAGATGTTTTCA
 GAAATACTTTGTGATGACCTGGATTGAATCCACTGACTTTTGTGCCAGCTATTGCCTCTGCCATTGCAG
 AGCAGATTGAGTCCTACCCACAGACAGCATCCTAGAGGATCAATCCGACCAGCGTGTATCATCAAGCT
 GAACATCCACGTGGGGAACATCTCCCTGGTGGACCAAGTTTGTGAGTGGGACATGTGAGAGAAAGAGAACTCC
 CCAGAGAAGTTTCCCTGAAGCTGTGCTCAGAGCTGGGCTTGGCGGGGAGTTTGTACCACCATTTGCAT
 ACAGCATCCGAGGACAGCTGAGCTGGCACCAGAAGACCTATGCCTTCAGTGAGAACCCTTCCCACAGT
 GGAGATTGCCATCCGAAATACCGGAGATGCTGACCAGTGGTGCCCTGCTGGAGACACTGACTGATGCC
 GAGATGGAGAAAAAGATCCGGGATCAAGATAGGAACACAAGGCGAATGAGGCGTCTTGCCAACTGCC
 CAGCCTGG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >MG225556 representing NM_001161853
 Red=Cloning site Green=Tags(s)

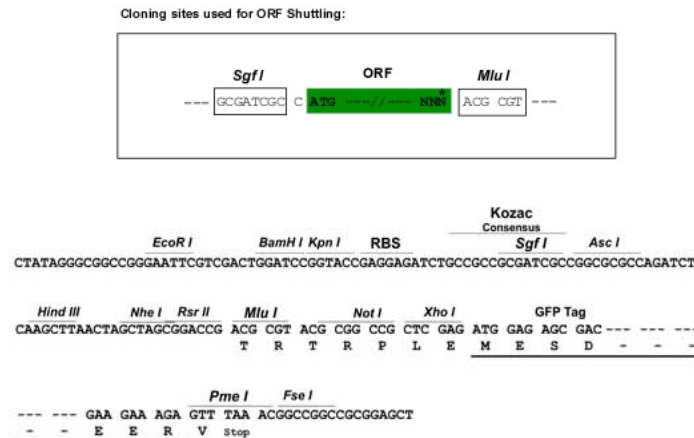
MMMALSKTFGQKPVKFQLEDDGEFYMIGSEVGNLYRMFRGSLYKRYPSLWRRLATVEERKKIVASSHDH
 GYTTLATSVTLKASEVEEILDGNDEKYKAVSISTEPPTYLREQKAKRNSQWVPTLPNSSHHLDAVPCST
 TINRNRMRDCKRTFPLCFDDHDAVIHENASQPEVLVPIRLDMEIDGQKLDAFTWNMNEKLMTPMF
 EILCDDLNLPLTFVPAIASAIRQQIESYPTDSILEDQSDQRVVIKLNHVGNISLVDQFEWDMSEKENS
 PEKFAKLCSELGLGGEFVTIIAYSIRGQLSWHQKTYAFSENPLPTVEIAIRNTGDADQWCPLLETLTDA
 EMEKKIRDQDRNTRRMRLANTAPAW

TRTRPLE - GFP Tag - V

Restriction Sites:

SgfI-MluI

Cloning Scheme:



ACCN: NM_001161853

ORF Size: 1128 bp

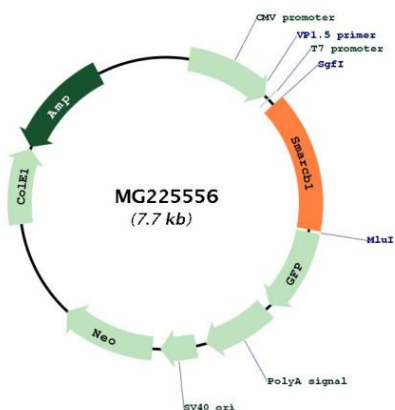
OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA 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.

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:	<u>NM_001161853.1, NP_001155325.1</u>
RefSeq Size:	1647 bp
RefSeq ORF:	1131 bp
Locus ID:	20587
Cytogenetics:	10 C1
Gene Summary:	<p>Core component of the BAF (SWI/SNF) complex. This ATP-dependent chromatin-remodeling complex plays important roles in cell proliferation and differentiation, in cellular antiviral activities and inhibition of tumor formation. The BAF complex is able to create a stable, altered form of chromatin that constrains fewer negative supercoils than normal. This change in supercoiling would be due to the conversion of up to one-half of the nucleosomes on polynucleosomal arrays into asymmetric structures, termed altosomes, each composed of 2 histones octamers. Stimulates in vitro the remodeling activity of SMARCA4/BRG1/BAF190A. Plays a key role in cell-cycle control and causes cell cycle arrest in G0/G1. Belongs to the neural progenitors-specific chromatin remodeling complex (npBAF complex) and the neuron-specific chromatin remodeling complex (nBAF complex). During neural development a switch from a stem/progenitor to a postmitotic chromatin remodeling mechanism occurs as neurons exit the cell cycle and become committed to their adult state. The transition from proliferating neural stem/progenitor cells to postmitotic neurons requires a switch in subunit composition of the npBAF and nBAF complexes. As neural progenitors exit mitosis and differentiate into neurons, npBAF complexes which contain ACTL6A/BAF53A and PHF10/BAF45A, are exchanged for homologous alternative ACTL6B/BAF53B and DPF1/BAF45B or DPF3/BAF45C subunits in neuron-specific complexes (nBAF). The npBAF complex is essential for the self-renewal/proliferative capacity of the multipotent neural stem cells. The nBAF complex along with CREST plays a role regulating the activity of genes essential for dendrite growth.[UniProtKB/Swiss-Prot Function]</p>

Product images:



Circular map for MG225556