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Product datasheet for MC215695

Smarca2 (NM_026003) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Smarca2 (NM_026003) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Smarca2
Synonyms:	2610209L14Rik; brahma; brm; SNF2alpha; Snf2l2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>MC215695 representing NM_026003 Red=Cloning site Blue=ORF Orange=Stop codon TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC GCCGCGATCGCC ATGGAAGAGGAGGTACGGCTTAAGAAGAGAAAAAGACGAAGAAATGTGGATAAAGACCCCGTGAAGGAAG ATGTGGAAAAAGCGAAGAAAAGAAGAGGCCGCCCTCCGGCTGAGAAGTTGTCACCAAATCCCCCAAAACT AACGAAGCAGATGAACGCCATCATTGATACTGTGATAAACTACAAAGACAGTTCAGGGCGACAGCTCAGT GAAGTCTTCATTCAGTTACCTTCCAGGAAAGACTTACCAGAATACTATGAATTAATTAGGAAGCCAGTGG ATTTCAAAAAGATAAAGGAGCGAATCCGTAATCATAAGTATCGGAGCCTGGGAGACCTGGAGAAAGACGT CATGCTTCTCTGTCACAACGCACAGACATTCAACTTGGAAGGATCCCAGATCTACGAAGACTCCATTGTC CTACAGTCAGTGTTTAAGAGTGCTCGGCAGAAAATTGCCAAAGAAGAAGAGAGTGAGGAAGAAAGCAATG AAGAAGAGGAAGAAGATGATGAAGAGGAGTCGGAGTCAGAGGCGAAATCTGTGAAGGTGAAAATCAAGCT GAATAAAAAGGAAGAGAAAGGCCGGGACACAGGGAAGGGCAAGAAGCGGCCAAACCGAGGCAAAGCCAAA CCCGTCGTGAGCGATTTTGACAGTGACGAGGAACAGGAAGAGAACGAACAGTCAGAAGCAAGTGGAACTG ATAACGAGTGA ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT ACAAGGATGACGACGATAAGGTTTAA
Restriction Sites:	SgfI-MluI
ACCN:	NM_026003
Insert Size:	711 bp

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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:	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_026003.2, NP_080279.1
RefSeq Size:	1964 bp
RefSeq ORF:	711 bp
Locus ID:	67155
Cytogenetics:	19 21.17 cM
Gene Summary:	Involved in transcriptional activation and repression of select genes by chromatin remodeling (alteration of DNA-nucleosome topology). Component of SWI/SNF chromatin remodeling complexes that carry out key enzymatic activities, changing chromatin structure by altering DNA-histone contacts within a nucleosome in an ATP-dependent manner. Binds DNA non-specifically (PubMed:22952240, PubMed:26601204). 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]