Recombinant Mouse Smarce1 Protein, Myc/DDK-tagged

Cat. No. Smarce1-5963M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Purified recombinant protein of mouse full-length SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily e, member 1 (cDNA clone, with C-terminal MYC/DDK tag, expressed in HEK293T cells.
Species	Mouse
Source	HEK293
Description	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. 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

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	regulating the activity of genes essential for dendrite growth. Also specifically interacts with the CoREST corepressor resulting in repression of neuronal specific gene promoters in non-neuronal cells. Required for the coactivation of estrogen responsive promoters by SWI/SNF complexes and the SRC/p160 family of histone acetyltransferases (HATs).
Molecular Mass	46.6 kDa
Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining
Stability	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
Storage	Store at -80 centigrade after receiving vials.
Concentration	>50 μg/mL as determined by microplate BCA method
Storage Buffer	25 mM Tris.HCl, pH 7.3, 100 mM glycine, 10% glycerol.

GENE INFORMATION

Gene Name	Smarce1 SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily e, member 1 [Mus musculus (house mouse)]
Official Symbol	Smarce1
Synonyms	Smarce1; SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily e, member 1; BAF5; Baf27; 2810417B20Rik; 5830412H02Rik; 9030408N19Rik; SWI/SNF-related matrix-associated actin-dependent regulator of chromatin subfamily E member 1; BAF57; BRG1-associated factor 57; SWI/SNF-related matrix-associated actin-dependent regulator chromatin subfamily E member 1

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Gene ID	57376
mRNA Refseq	NM_020618
Protein Refseq	NP_065643
UniProt ID	O54941

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