

## **KD-Validated Anti-SMARCE1 Rabbit Monoclonal Antibody**

Rabbit monoclonal antibody Catalog # AGI1141

### **Specification**

## **KD-Validated Anti-SMARCE1 Rabbit Monoclonal Antibody - Product Information**

Application WB, FC, ICC Primary Accession Q969G3

Reactivity Rat, Human, Mouse Clonality Monoclonal

Isotype Rabbit IgG
Calculated MW Predicted, 47 kDa, observed, 57 kDa KDa

Gene Name SMARCE1

Aliases SMARCE1; SWI/SNF Related, Matrix

Associated, Actin Dependent Regulator Of

Chromatin, Subfamily E, Member 1; BAF57;

SWI/SNF-Related Matrix-Associated Actin-Dependent Regulator Of Chromatin Subfamily E Member 1; BRG1-Associated

Factor 57; SWI/SNF-Related

Matrix-Associated Actin-Dependent Regulator Of Chromatin E1; Chromatin Remodeling Complex BRG1-Associated

Factor 57; CSS5

Immunogen A synthesized peptide derived from human

**BAF57/SMARCE1** 

# KD-Validated Anti-SMARCE1 Rabbit Monoclonal Antibody - Additional Information

Gene ID **6605** 

**Other Names** 

SWI/SNF-related matrix-associated actin-dependent regulator of chromatin subfamily E member 1, BRG1-associated factor 57, BAF57, SMARCE1, BAF57

## KD-Validated Anti-SMARCE1 Rabbit Monoclonal Antibody - Protein Information

Name SMARCE1

Synonyms BAF57

#### **Function**

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 regulating the activity of genes essential for dendrite growth (By similarity). Required for the coactivation of estrogen responsive promoters by SWI/SNF complexes and the SRC/p160 family of histone acetyltransferases (HATs). Also specifically interacts with the CoREST corepressor resulting in repression of neuronal specific gene promoters in non-neuronal cells.

#### **Cellular Location**

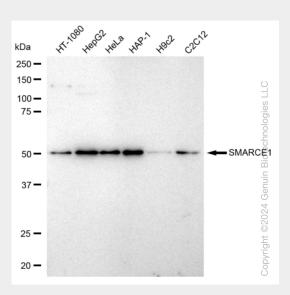
Nucleus {ECO:0000255|PROSITE-ProRule:PRU00267, ECO:0000269|PubMed:12192000}

## **KD-Validated Anti-SMARCE1 Rabbit Monoclonal Antibody - Protocols**

Provided below are standard protocols that you may find useful for product applications.

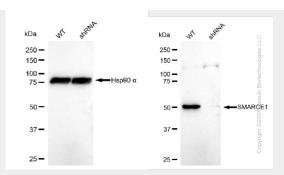
- Western Blot
- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- Immunofluorescence
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

## KD-Validated Anti-SMARCE1 Rabbit Monoclonal Antibody - Images

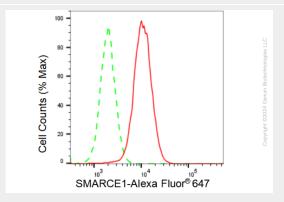


Western blotting analysis using anti-SMARCE1 antibody (Cat#AGI1141). Total cell lysates (30  $\mu$ g) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-SMARCE1 antibody (Cat#AGI1141, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.

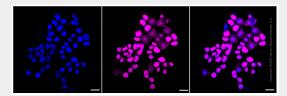




Western blotting analysis using anti-SMARCE1 antibody (Cat#AGI1141). SMARCE1 expression in wild type (WT) and SMARCE1 shRNA knockdown (KD) HeLa cells with 30  $\mu$ g of total cell lysates. Hsp90  $\alpha$  serves as a loading control. The blot was incubated with anti-SMARCE1 antibody (Cat#AGI1141, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Flow cytometric analysis of SMARCE1 expression in HAP-1 cells using SMARCE1 antibody (Cat#AGI1141, 1:2,000). Green, isotype control; red, SMARCE1.



Immunocytochemical staining of HAP-1 cells with SMARCE1 antibody (Cat#AGI1141, 1:1,000). Nuclei were stained blue with DAPI; SMARCE1 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: High. Scale bar:  $20~\mu m$ .