

Product Name: KD-Validated SMARCA4 Recombinant Rabbit Monoclonal Antibody
Catalog #: KVA00893

For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Rabbit
Application	WB,FCM,ICC,IHC-P
Reactivity	Human,Mouse,Rat
Conjugation	Unconjugated
Modification	Unmodified
Isotype	Rabbit IgG
Clonality	Rabbit mAb
Form	Liquid
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Supplied in PBS (pH 7.4) containing 50% glycerol, and 0.02% sodium azide.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:4,000-1:20,000; FC 1:200-1:2,000; ICC 1:100-1:1,000; IHC-P 1:100-1:200
Molecular Weight	Calculated MW: 184.6kDa

Antigen Information

Gene Name	SMARCA4 SMARCA4; SWI/SNF Related, Matrix Associated, Actin Dependent Regulator Of Chromatin, Subfamily A, Member 4; BRG1; Mitotic Growth And Transcription Activator; ATP-Dependent Helicase SMARCA4; SNF2-BETA; HSNF2b; BAF190; SNF2LB; SNF2L4; SNF2; SWI2; Global Transcription Activator Homologous Sequence; Sucrose Nonfermenting-Like 4;
Alternative Names	Transcription Activator BRG1; BRG1-Associated Factor 190A; Protein Brahma Homolog 1; BRM/SWI2-Related Gene 1; Homeotic Gene Regulator; Brahma Protein-Like 1; Nuclear Protein GRB1; Protein BRG-1; SNF2-Like 4; FLJ39786; BAF190A; SWI/SNF-Related Matrix-Associated Actin-Dependent Regulator Of Chromatin Subfamily A Member 4; EC 3.6.4.-; SNF2-Beta; EC 3.6.1; MRD16; RTPS2; SNF2B; CSS4
Gene ID	6597.0

SwissProt ID	P51532
Immunogen	A synthesized peptide derived from human BRG1

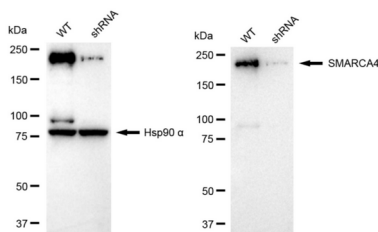
Background

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]

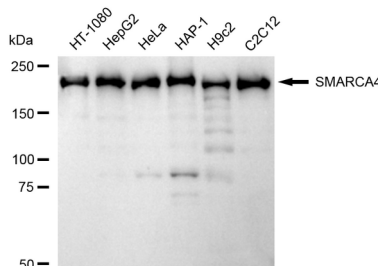
Research Area

Neuroscience, Epigenetics and Nuclear Signaling, Stem Cells, Cancer

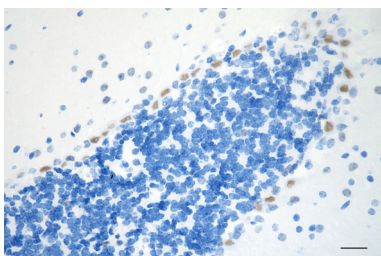
Image Data



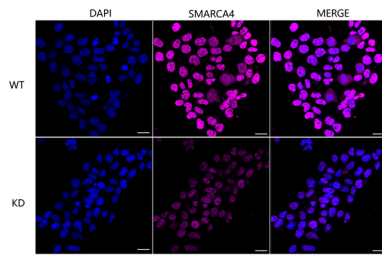
Western blotting analysis using SMARCA4 antibody (KVA00893). SMARCA4 expression in wild type (WT) and SMARCA4 shRNA knockdown (KD) HeLa cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with SMARCA4 antibody (KVA00893, 1:20,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



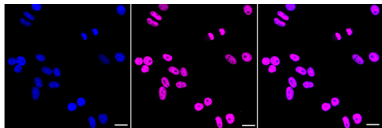
Western blotting analysis using SMARCA4 antibody (KVA00893). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with SMARCA4 antibody (KVA00893, 1:20,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



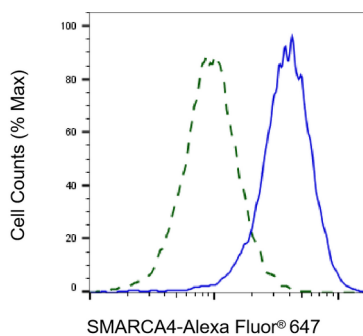
Immunohistochemistry was performed on paraffin-embedded mouse brain using SMARCA4 antibody (KVA00893, 1:200). Antigen retrieval was done in sodium citrate buffer (pH 6.0). DAB was used for detection, with hematoxylin counterstaining. Images were acquired using a Nikon Ci-L Plus microscope (40× objective). Scale bar: 25 µm.



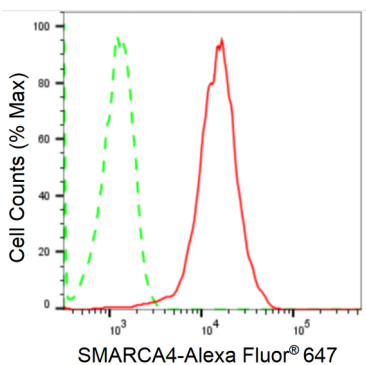
Immunocytochemical staining of HeLa cells using SMARCA4 antibody (KVA00893, 1:1,000), Top panel: wild-type (WT); Bottom panel: SMARCA4 shRNA knockdown (KD). Nuclei were stained blue with DAPI; SMARCA4 was stained magenta with Alexa Fluor® 647. Scale bar, 20 μm.



Immunocytochemical staining of HepG2 cells with SMARCA4 antibody (KVA00893, 1:1,000). Nuclei were stained blue with DAPI; SMARCA4 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 μm.



Validation of SMARCA4 knockdown using flow cytometry. Wild-type(WT, Blue) and knockdown(KD, Green) HeLa cells were stained with SMARCA4 antibody (KVA00893, 1:2,000) and analyzed using BD flow cytometer.



Flow cytometric analysis of SMARCA4 expression in HepG2 cells using SMARCA4 antibody (KVA00893, 1:2,000). Green, isotype control; red, SMARCA4.