



Datasheet for ABIN686122
anti-SMARCA4 antibody (AA 51-167)



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1 Publication

Overview

Quantity:	100 µL
Target:	SMARCA4
Binding Specificity:	AA 51-167
Reactivity:	Human, Rat
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This SMARCA4 antibody is un-conjugated
Application:	ELISA, Immunohistochemistry (Paraffin-embedded Sections) (IHC (p)), Flow Cytometry (FACS), Immunofluorescence (Cultured Cells) (IF (cc)), Immunofluorescence (Paraffin-embedded Sections) (IF (p)), Immunohistochemistry (Frozen Sections) (IHC (fro))

Product Details

Immunogen:	KLH conjugated synthetic peptide derived from human of human SMARCA4/Transcription activator BRG1
Isotype:	IgG
Cross-Reactivity:	Human, Rat
Predicted Reactivity:	Mouse,Dog
Purification:	Purified by Protein A.

Target Details

Target:	SMARCA4
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Target Details

Alternative Name: BRG-1/SMARCA4/SNF2 beta ([SMARCA4 Products](#))

Background: Synonyms: BRG1, SNF2, SWI2, MRD16, RTPS2, BAF190, SNF2L4, SNF2LB, hSNF2b, BAF190A, Transcription activator BRG1, ATP-dependent helicase SMARCA4, BRG1-associated factor 190A, Mitotic growth and transcription activator, Protein BRG-1, Protein brahma homolog 1, SNF2-beta, SWI/SNF-related matrix-associated actin-dependent regulator of chromatin subfamily A member 4, SMARCA4, SNF2B

Background: Transcriptional coactivator cooperating with nuclear hormone receptors to potentiate transcriptional activation. Component of the CREST-BRG1 complex, a multiprotein complex that regulates promoter activation by orchestrating a calcium-dependent release of a repressor complex and a recruitment of an activator complex. In resting neurons, transcription of the c-FOS promoter is inhibited by BRG1-dependent recruitment of a phospho-RB1-HDAC repressor complex. Upon calcium influx, RB1 is dephosphorylated by calcineurin, which leads to release of the repressor complex. At the same time, there is increased recruitment of CREBBP to the promoter by a CREST-dependent mechanism, which leads to transcriptional activation. The CREST-BRG1 complex also binds to the NR2B promoter, and activity-dependent induction of NR2B expression involves a release of HDAC1 and recruitment of CREBBP. 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 post-mitotic 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 post-mitotic 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.

Gene ID: 6597

UniProt: [P51532](#)

Pathways: [Intracellular Steroid Hormone Receptor Signaling Pathway](#), [Regulation of Intracellular Steroid Hormone Receptor Signaling](#), [Stem Cell Maintenance](#)

Application Details

Application Notes: ELISA 1:500-1000

Application Details

FCM 1:20-100
IHC-P 1:200-400
IHC-F 1:100-500
IF(IHC-P) 1:50-200
IF(IHC-F) 1:50-200
IF(ICC) 1:50-200

Restrictions: For Research Use only

Handling

Format: Liquid

Concentration: 1 µg/µL

Buffer: 0.01M TBS(pH 7.4) with 1 % BSA, 0.02 % Proclin300 and 50 % Glycerol.

Preservative: ProClin

Precaution of Use: This product contains ProClin: a POISONOUS AND HAZARDOUS SUBSTANCE, which should be handled by trained staff only.

Storage: 4 °C, -20 °C

Storage Comment: Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

Expiry Date: 12 months

Publications

Product cited in: Chen, Han, Wei, Zhang, Shi, Duan, Li, Zhou, Pu, Zhang, Kang: "SNORD76, a box C/D snoRNA, acts as a tumor suppressor in glioblastoma." in: **Scientific reports**, Vol. 5, pp. 8588, (2015) ([PubMed](#)).