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SMARCB1 / INI1 Antibody (clone 3E10)

Mouse Monoclonal Antibody
Catalog # ALS14339

Specification

SMARCB1 / INI1 Antibody (clone 3E10) - Product Information

Application	**WB, IHC-P, E**
Primary Accession	Q12824
Reactivity	**Human, Mouse, Rat**
Host	**Mouse**
Clonality	**Monoclonal**
Calculated MW	**44kDa KDa**
Dilution	**WB~~1:1000** **IHC-P~~N/A** **E~~N/A**

SMARCB1 / INI1 Antibody (clone 3E10) - Additional Information

Gene ID 6598

Other Names
SWI/SNF-related matrix-associated actin-dependent regulator of chromatin subfamily B member 1, BRG1-associated factor 47, BAF47, Integrase interactor 1 protein, SNF5 homolog, hSNF5, SMARCB1, BAF47, INI1, SNF5L1

Target/Specificity
Human SMARCB1

Reconstitution & Storage
Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.

Precautions
SMARCB1 / INI1 Antibody (clone 3E10) is for research use only and not for use in diagnostic or therapeutic procedures.

SMARCB1 / INI1 Antibody (clone 3E10) - Protein Information

Name SMARCB1

Synonyms BAF47, INI1, SNF5L1

Function
Core component of the BAF (hSWI/SNF) complex. This ATP- dependent chromatin-remodeling complex plays important roles in cell proliferation and differentiation, in cellular antiviral activities and inhibition of tumor formation. The BAF complex is able to create a stable, altered form of chromatin that constrains fewer negative supercoils than normal. This change in supercoiling would be due to the conversion of up to one-half of the nucleosomes on polynucleosomal arrays into asymmetric structures, termed altosomes, each composed of 2 histones octamers. Stimulates

in vitro the remodeling activity of SMARCA4/BRG1/BAF190A. Involved in activation of CSF1 promoter. 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). Plays a key role in cell-cycle control and causes cell cycle arrest in G0/G1.

Cellular Location
Nucleus.

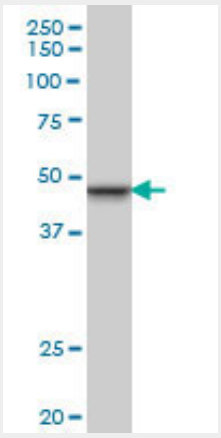
Volume
50 µl

SMARCB1 / INI1 Antibody (clone 3E10) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

SMARCB1 / INI1 Antibody (clone 3E10) - Images



Western blot of SMARCB1 expression in PC-12 cell lysate.

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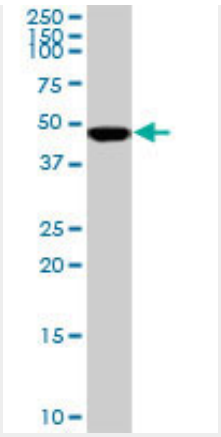

Western blot of SMARCB1 expression in HeLa nuclear extract.

SMARCB1 / INI1 Antibody (clone 3E10) - Background

Core component of the BAF (hSWI/SNF) complex. This ATP- dependent chromatin-remodeling complex plays important roles in cell proliferation and differentiation, in cellular antiviral activities and inhibition of tumor formation. The BAF complex is able to create a stable, altered form of chromatin that constrains fewer negative supercoils than normal. This change in supercoiling would be due to the conversion of up to one-half of the nucleosomes on polynucleosomal arrays into asymmetric structures, termed altosomes, each composed of 2 histones octamers. Stimulates in vitro the remodeling activity of SMARCA4/BRG1/BAF190A. Involved in activation of CSF1 promoter. 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 (By similarity). Plays a key role in cell-cycle control and causes cell cycle arrest in G0/G1. Also involved in vitamin D-coupled transcription regulation via its association with the WINAC complex, a chromatin-remodeling complex recruited by vitamin D receptor (VDR), which is required for the ligand- bound VDR-mediated transrepression of the CYP27B1 gene.

SMARCB1 / INI1 Antibody (clone 3E10) - References

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Versteege I.,et al.Nature 394:203-206(1998).
Bruder C.E.,et al.Biochem. Biophys. Res. Commun. 257:886-890(1999).
Tozaki H.,et al.Submitted (SEP-1998) to the EMBL/GenBank/DDBJ databases.
Collins J.E.,et al.Genome Biol. 5:R84.1-R84.11(2004).