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Goat Anti-BAF57 / SMARCE1 Antibody

Peptide-affinity purified goat antibody
Catalog # AF1137a

Specification

Goat Anti-BAF57 / SMARCE1 Antibody - Product Information

Application	**WB, IHC, E**
Primary Accession	Q969G3
Other Accession	NP_003070, 6605, 57376 (mouse)
Reactivity	**Human**
Predicted	**Mouse**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**100ug/200ul**
Isotype	**IgG**
Calculated MW	**46649**

Goat Anti-BAF57 / SMARCE1 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

Dilution
WB~~1:1000
IHC~~1:100~500
E~~N/A

Format
0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Goat Anti-BAF57 / SMARCE1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-BAF57 / SMARCE1 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.

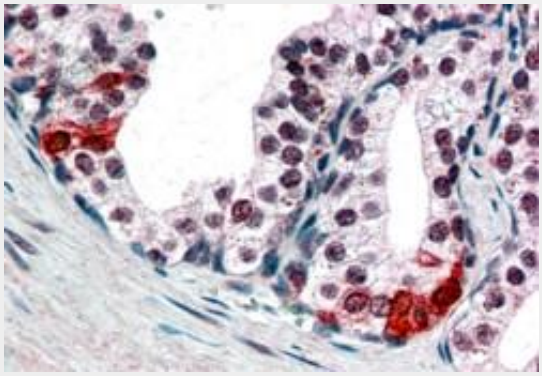
Cellular Location
Nucleus {ECO:0000255|PROSITE-ProRule:PRU00267, ECO:0000269|PubMed:12192000}

Goat Anti-BAF57 / SMARCE1 Antibody - 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

Goat Anti-BAF57 / SMARCE1 Antibody - Images



In paraffin embedded Human Prostate shows nuclear staining in secretory epithelial cells. Recommended concentration, 3-5 µg/ml.

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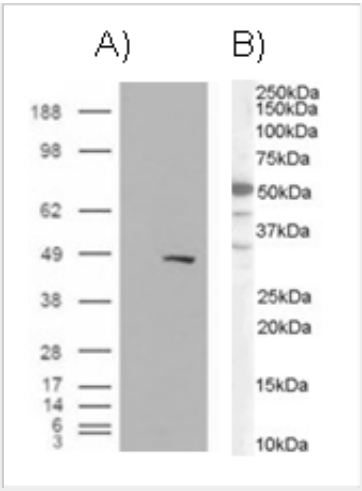

A) HEK293 overexpressing BAF57 (RC209444) and probed with AF1137a (mock transfection in first lane), tested by Origene. B) see Western Blot.

Goat Anti-BAF57 / SMARCE1 Antibody - Background

The protein encoded by this gene is part of the large ATP-dependent chromatin remodeling complex SWI/SNF, which is required for transcriptional activation of genes normally repressed by chromatin. The encoded protein, either alone or when in the SWI/SNF complex, can bind to 4-way junction DNA, which is thought to mimic the topology of DNA as it enters or exits the nucleosome. The protein contains a DNA-binding HMG domain, but disruption of this domain does not abolish the DNA-binding or nucleosome-displacement activities of the SWI/SNF complex. Unlike most of the SWI/SNF complex proteins, this protein has no yeast counterpart.

Goat Anti-BAF57 / SMARCE1 Antibody - References

A role for BAF57 in cell cycle-dependent transcriptional regulation by the SWI/SNF chromatin remodeling complex. Hah N, et al. Cancer Res, 2010 Jun 1. PMID 20460533.
Genome-wide association study and meta-analysis find that over 40 loci affect risk of type 1 diabetes. Barrett JC, et al. Nat Genet, 2009 Jun. PMID 19430480.
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Disrupted in Schizophrenia 1 Interactome: evidence for the close connectivity of risk genes and a potential synaptic basis for schizophrenia. Camargo LM, et al. Mol Psychiatry, 2007 Jan. PMID 17043677.