

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.

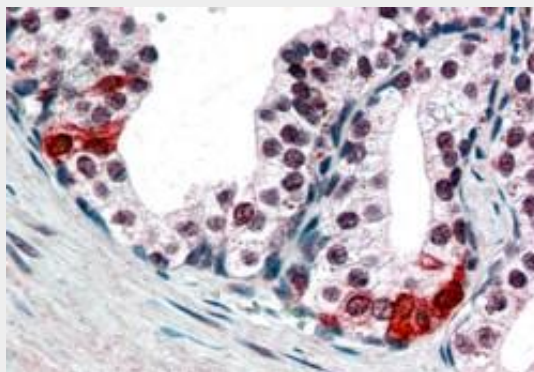
Cellular Location

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

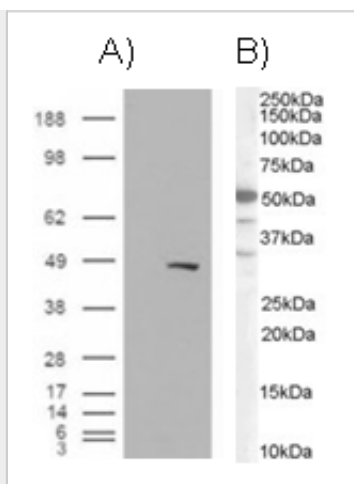
Goat Anti-BAF57 / SMARCE1 Antibody - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [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.



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.

Toward a confocal subcellular atlas of the human proteome. Barbe L, et al. *Mol Cell Proteomics*, 2008 Mar. PMID 18029348.

Cellular transcription modulator SMARCE1 binds to HBV core promoter containing naturally occurring deletions and represses viral replication. Pan H, et al. *Biochim Biophys Acta*, 2007 Sep. PMID 17669635.

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.