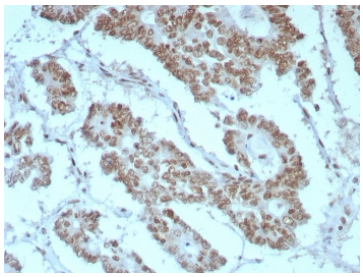
BAF47 Antibody rINI1/8850 / SMARCB1 MAb [clone rINI1/8850] (V4861)

Catalog No.	Formulation	Size
V4861-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V4861-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V4861SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

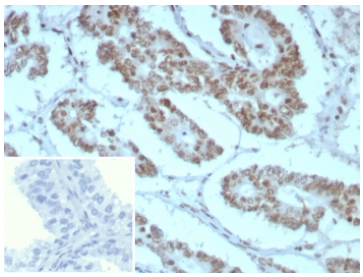
Recombinant MOUSE MONOCLONAL

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Mouse Monoclonal
Isotype	Mouse IgG1, kappa
Clone Name	rINI1/8850
Purity	Protein A/G affinity
UniProt	Q12824
Localization	Nucleus
Applications	Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT
Limitations	This BAF47 Antibody rINI1/8850 is available for research use only.



BAF47 Antibody rINI1/8850 by IHC in Human Prostate Tissue. Immunohistochemistry analysis of formalin-fixed, paraffin-embedded human prostate tissue using recombinant monoclonal BAF47 antibody rINI1/8850. Heat-induced epitope retrieval was performed by boiling tissue sections in 10 mM Tris with 1 mM EDTA at pH 9 for 20 minutes, followed by cooling before staining. The assay evaluates nuclear expression of SMARCB1, also known as Integrase Interactor 1, a component of the SWI/SNF chromatin-remodeling complex.



BAF47 Antibody rINI1/8850 by IHC in Human Prostate With Secondary Antibody Control. Immunohistochemistry analysis of formalin-fixed, paraffin-embedded human prostate tissue using recombinant monoclonal BAF47 antibody rINI1/8850. Heat-induced epitope retrieval was performed by boiling sections in 10 mM Tris with 1 mM EDTA at pH 9 for 20 minutes, followed by cooling. The inset shows a negative control in which PBS was substituted for the primary antibody. This control helps assess background staining associated with the secondary detection system during evaluation of nuclear SMARCB1/INI1 expression.

Description

BAF47 Antibody rINI1/8850 recognizes BRG1-associated factor 47 (BAF47), a nuclear protein encoded by the SMARCB1 gene. Also known as INI1, SNF5, and Integrase Interactor 1, this protein is an essential component of mammalian SWI/SNF chromatin-remodeling complexes, also called BAF complexes. These ATP-dependent molecular assemblies regulate chromatin accessibility and influence transcription, cellular differentiation, and tumor suppression.

SMARCB1 participates in chromatin remodeling by supporting the structural integrity and regulatory activity of SWI/SNF complexes. These complexes use energy from ATP hydrolysis to reposition or reorganize nucleosomes, allowing transcription factors and other regulatory proteins to access specific genomic regions. Through these interactions, BAF47 contributes to the control of gene expression programs involved in cell proliferation, lineage commitment, and normal tissue development.

Integrase Interactor 1 is particularly important in cancer biology because SMARCB1 functions as a tumor suppressor. Biallelic inactivation of SMARCB1 is a defining molecular alteration in many malignant rhabdoid tumors, including atypical teratoid/rhabdoid tumors of the central nervous system. Loss of SMARCB1 disrupts normal chromatin regulation and can promote abnormal transcriptional programs associated with malignant transformation.

Immunohistochemical detection of BAF47 is valuable in surgical pathology research because normal cells generally exhibit nuclear INI1 expression, whereas SMARCB1-deficient tumors frequently demonstrate complete loss of tumor cell nuclear staining. Retained nuclear staining in adjacent non-neoplastic cells provides an important internal positive control. This distinction helps researchers investigate SMARCB1-deficient neoplasms and differentiate tumors with similar histological appearances.

Loss of INI1 expression is also associated with epithelioid sarcoma, renal medullary carcinoma, and selected other malignancies. However, the absence of nuclear staining must be interpreted alongside tissue morphology, internal controls, and additional molecular or immunohistochemical findings. Not all tumors within these diagnostic categories share identical SMARCB1 alterations.

BAF47 is therefore an important marker for investigating chromatin-remodeling abnormalities, tumor suppressor pathways, and the molecular classification of SMARCB1-deficient cancers. Its nuclear localization also makes immunohistochemistry useful for examining protein expression in preserved tissue architecture.

A BAF47 Antibody rINI1/8850 from NSJ Bioreagents supports research involving SMARCB1 expression, INI1 nuclear localization, SWI/SNF chromatin remodeling, and the identification of tumors associated with loss of BAF47 protein.

For an antibody with protein microarray specificity validation, see our INI1 Antibody SMARCB1/3984.

Application Notes

Optimal dilution of the BAF47 Antibody rINI1/8850 should be determined by the researcher.

Immunogen

A recombinant partial protein sequence (within amino acids 1-200) from the human protein was used as the immunogen for the BAF47 Antibody rINI1/8850.

Storage

Aliquot the BAF47 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

SMARCB1 antibody, INI1 antibody, Integrase Interactor 1 antibody, SNF5 antibody, hSNF5 antibody, BAF47 protein antibody, BRG1-Associated Factor 47 antibody, SWI/SNF-Related Matrix-Associated Actin-Dependent Regulator of Chromatin Subfamily B Member 1 antibody

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