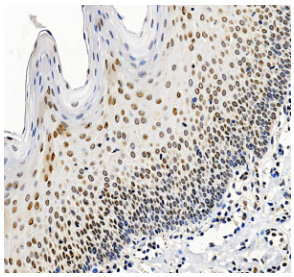
SMARCB1 Antibody / INI1 Polyclonal Antibody (RQ7619)

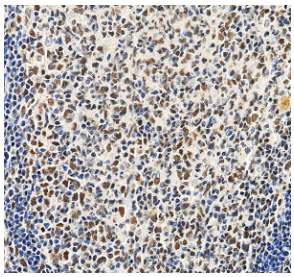
Catalog No.	Formulation	Size
RQ7619	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

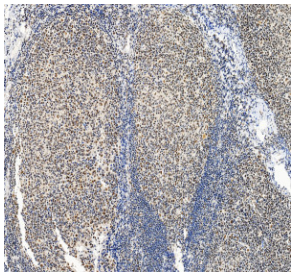
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	Q12824
Applications	Western blot: 0.2-0.5ug/ml Immunohistochemistry (FFPE): 2-5ug/ml Immunofluorescence: 5ug/ml Direct ELISA: 0.1-0.5ug/ml
Limitations	This SMARCB1 Antibody / INI1 Polyclonal Antibody is available for research use only.



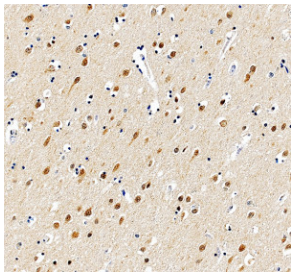
SMARCB1 Antibody by IHC in Human Tonsil Epithelium Immunohistochemistry of FFPE human tonsil sections using SMARCB1 Antibody at 2 ug/ml. Distinct nuclear staining is visible throughout the stratified squamous epithelium, with labeling apparent across multiple epithelial layers. The nuclear localization is consistent with the expected distribution of SMARCB1/INI1. This INI1 Polyclonal Antibody was tested following heat-induced epitope retrieval in EDTA buffer.



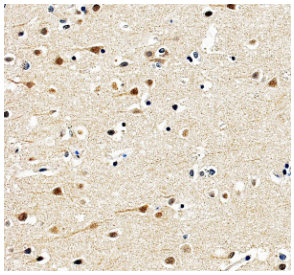
SMARCB1 Antibody by IHC in Tonsillar Lymphoid Tissue Immunohistochemistry of FFPE human tonsil sections using SMARCB1 Antibody at 2 ug/ml. Numerous cells display prominent nuclear staining, providing clear visualization of SMARCB1/INI1 expression within the tonsillar lymphoid tissue. This INI1 Polyclonal Antibody produces well-defined nuclear labeling with comparatively limited background. Heat-induced epitope retrieval was performed in EDTA buffer.



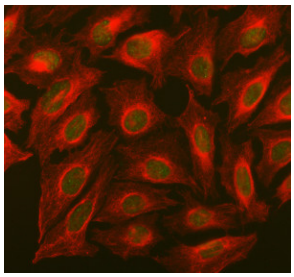
SMARCB1 Antibody by IHC Showing Tonsil Tissue Distribution Immunohistochemistry of FFPE human tonsil sections using SMARCB1 Antibody at 2 ug/ml. Widespread nuclear staining is evident throughout the tissue, with the lower-magnification view demonstrating the distribution of SMARCB1/INI1-positive cells across the tonsillar architecture. This INI1 Polyclonal Antibody was tested following heat-induced epitope retrieval in EDTA buffer.



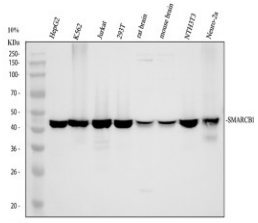
SMARCB1 Antibody by IHC in Human Cerebral Cortex Immunohistochemistry of FFPE human cerebral cortex sections using SMARCB1 Antibody at 2 ug/ml. Strong nuclear labeling is visible in numerous neurons, while the surrounding neuropil shows comparatively weaker staining. The prominent neuronal nuclear signal is consistent with the expected localization of SMARCB1/INI1. This INI1 Polyclonal Antibody was tested following heat-induced epitope retrieval in EDTA buffer.



SMARCB1 Antibody by IHC in Cortical Neurons Immunohistochemistry of FFPE human cerebral cortex sections using SMARCB1 Antibody at 2 ug/ml. Numerous neurons exhibit distinct nuclear staining, with variation in signal intensity among individual cells. The staining demonstrates nuclear localization of SMARCB1/INI1 within cortical neurons. This INI1 Polyclonal Antibody was tested following heat-induced epitope retrieval in EDTA buffer.



SMARCB1 Antibody by IF in U2OS Cells Immunofluorescence staining of U2OS cells using SMARCB1 Antibody at 5 ug/ml. SMARCB1/INI1 is visualized in green and shows predominantly nuclear localization, while alpha-tubulin staining in red delineates the cytoplasmic microtubule network. The contrasting signals clearly demonstrate the nuclear distribution detected by this INI1 Polyclonal Antibody.



SMARCB1 Antibody by WB in Multiple Cell Lines and Brain Tissue Western blot testing of SMARCB1 Antibody at 0.167 ug/ml with HepG2 (lane 1), K562 (lane 2), Jurkat (lane 3), 293T (lane 4), rat brain (lane 5), mouse brain (lane 6), NIH3T3 (lane 7) and Neuro-2a (lane 8) lysates. This INI1 Polyclonal Antibody detects a prominent band at approximately 44 kDa, consistent with the calculated molecular weight of 44.1 kDa for SMARCB1/INI1. Detection across human, rat and mouse samples supports recognition of the target in multiple species.

Description

SMARCB1 Antibody detects SWI/SNF-related matrix-associated actin-dependent regulator of chromatin subfamily B member 1, a nuclear protein also widely known as INI1, BAF47, SNF5 and hSNF5. SMARCB1 is an integral component of the SWI/SNF family of ATP-dependent chromatin-remodeling complexes. These multiprotein complexes alter nucleosome positioning and chromatin accessibility, thereby helping regulate transcription, cellular differentiation, proliferation and developmental programs.

SMARCB1 has an important tumor suppressor function. Biallelic inactivation of the SMARCB1 gene is a characteristic molecular alteration of malignant rhabdoid tumors and occurs in several other neoplasms. Loss of SMARCB1 can disrupt normal SWI/SNF complex activity and produce broad changes in gene expression, differentiation and cell-cycle control. For this reason, SMARCB1 and the wider SWI/SNF machinery are important subjects of research into the relationship between chromatin remodeling and cancer development.

The protein is frequently called INI1 because it was initially identified as an interactor of HIV-1 integrase. BAF47 is another established name derived from its membership in the mammalian BAF chromatin-remodeling complex, while SNF5 and hSNF5 reflect homology with the yeast SNF5 protein. Although these historical names remain common in research and pathology literature, SMARCB1 is the official gene symbol and provides a useful molecular framework for studies of SWI/SNF complex biology.

SMARCB1 deficiency is associated with malignant rhabdoid tumor, epithelioid sarcoma and other uncommon tumor types. Investigation of these malignancies has helped establish the broader importance of SWI/SNF complex alterations in oncogenesis. Beyond cancer research, SMARCB1 is studied in transcriptional regulation, chromatin organization, developmental biology, lineage determination and mechanisms governing cellular proliferation and differentiation.

Research into SMARCB1 also provides insight into how individual SWI/SNF subunits cooperate to maintain appropriate chromatin states and transcriptional programs. Disruption of a single core component can have widespread consequences for gene regulation, making SMARCB1 useful for investigating both normal chromatin biology and disease-associated epigenetic alterations. NSJ Bioreagents offers this INI1 Polyclonal Antibody for studies of SMARCB1 and related pathways. An SMARCB1 Antibody can be used to investigate the expression and biological roles of this key SWI/SNF tumor suppressor.

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

Application Notes

Optimal dilution of the SMARCB1 Antibody / INI1 Polyclonal Antibody should be determined by the researcher.

Immunogen

E. coli-derived recombinant human protein (amino acids E105-D358) was used as the immunogen for the SMARCB1 antibody.

Storage

After reconstitution, the SMARCB1 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

INI1 antibody, BAF47 antibody, SNF5 antibody, hSNF5 antibody, Integrase Interactor 1 antibody, Malignant Rhabdoid Tumor Suppressor antibody

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