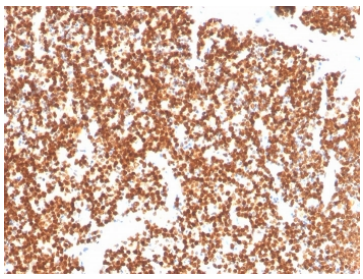
SF-1 Antibody / Steroidogenic Transcription Factor Antibody [clone NR5A1/3397] (V8731)

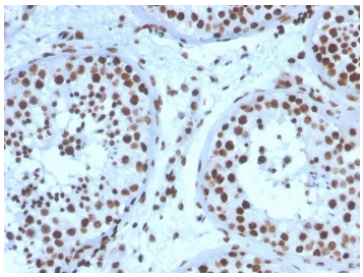
Catalog No.	Formulation	Size
V8731-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V8731-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V8731SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

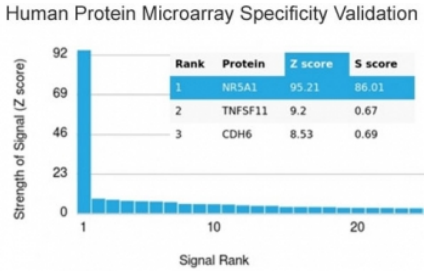
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2b, kappa
Clone Name	NR5A1/3397
Purity	Protein G affinity chromatography
UniProt	Q13285
Localization	Nuclear
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml for 30 minutes at RT
Limitations	This SF-1 Antibody / Steroidogenic Transcription Factor Antibody is available for research use only.



SF-1 Antibody Thymus IHC. Immunohistochemistry analysis of FFPE human thymus tissue stained with SF-1 Antibody demonstrates strong diffuse nuclear HRP-DAB brown staining throughout densely packed thymic cellular populations, consistent with expression of steroidogenic factor 1 / NR5A1 in endocrine-associated transcriptionally active cells. This steroidogenic transcription factor antibody highlights nuclear localization patterns associated with steroid hormone-responsive transcriptional regulation and endocrine lineage-associated signaling pathways. HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



SF-1 Antibody Testis IHC. Immunohistochemistry analysis of FFPE human testis tissue stained with SF-1 Antibody demonstrates strong nuclear HRP-DAB brown staining within seminiferous tubule-associated cellular populations, consistent with expression of steroidogenic factor 1 / NR5A1 in reproductive and endocrine-associated transcriptionally active compartments. This steroidogenic transcription factor antibody highlights nuclear localization patterns associated with gonadal differentiation, steroidogenic signaling, and reproductive tissue-associated transcriptional regulation pathways. HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



SF-1 Antibody Protein Microarray Validation. Analysis of HuProt(TM) microarray containing more than 19,000 full-length human proteins using SF-1 Antibody demonstrates highly selective recognition of steroidogenic factor 1 / NR5A1 with strong separation from non-target proteins across the tested human proteome. This steroidogenic transcription factor antibody showed the highest signal intensity for NR5A1, supporting the foremost specificity of clone NR5A1/3397 in large-scale protein microarray validation studies. In HuProt(TM) analysis, the Z-score represents the strength of antibody binding signal relative to the overall array mean, while the S-score reflects target specificity relative to the next highest ranked protein signal. Elevated S-score separation supports preferential target recognition and reduced off-target reactivity in complex proteomic environments.

Description

Steroidogenic factor 1 (NR5A1), commonly known as SF-1, is an orphan nuclear receptor transcription factor that functions as a master regulator of steroidogenic tissue development, endocrine differentiation, and hormone-associated transcriptional regulation. SF-1 plays critical roles in adrenal gland formation, gonadal development, reproductive tissue specification, and transcriptional control of genes involved in steroid hormone biosynthesis. SF-1 Antibody is useful for investigations involving endocrine differentiation pathways, steroidogenic tissue biology, reproductive development, and nuclear receptor-associated transcriptional regulation.

SF-1 antibody, also referred to as NR5A1 antibody, Steroidogenic factor 1 antibody, and Ad4BP antibody in the literature, recognizes a nuclear receptor encoded on chromosome 9q33.3. NR5A1 localizes predominantly to the nucleus, where it regulates expression of genes involved in steroidogenesis, endocrine tissue specification, cholesterol metabolism, gonadal differentiation, and reproductive signaling pathways. Expression of SF-1 is strongly associated with adrenal cortical cells, gonadal stromal populations, steroid-producing tissues, and subsets of endocrine-associated neoplasms.

SF-1 Antibody / Steroidogenic Transcription Factor Antibody (clone NR5A1/3397) is uniquely positioned for studies involving endocrine lineage specification and steroidogenic tissue-associated transcriptional regulation. This mouse monoclonal antibody demonstrates strong immunohistochemical detection of SF-1 together with HuProt microarray specificity validation against more than 19,000 full-length human proteins. The broad validation profile supports use of clone NR5A1/3397 in investigations involving adrenal biology, gonadal differentiation, steroid hormone-associated signaling pathways, and endocrine tumor characterization.

Analysis of HuProt(TM) microarrays containing more than 19,000 individually purified full-length human proteins demonstrated highly selective recognition of NR5A1 by clone NR5A1/3397. In HuProt(TM) analysis, the Z-score represents the strength of antibody binding signal relative to the overall array mean, while the S-score reflects target specificity relative to the next highest ranked protein signal. Elevated S-score separation supports preferential target recognition and reduced off-target binding across the tested human proteome. This specificity validation approach is valuable for tissue-based studies involving nuclear transcription factors and heterogeneous endocrine cellular environments.

SF-1 functions as a central transcriptional regulator of genes involved in steroid hormone synthesis including CYP11A1,

CYP17A1, STAR, and additional steroidogenic enzymes required for adrenal and gonadal endocrine activity. Altered NR5A1 expression has been associated with disorders of sex development, adrenal dysfunction, gonadal abnormalities, endocrine tumor progression, reproductive signaling alterations, and steroidogenic pathway dysregulation. Because SF-1 is closely linked to steroid-producing cellular populations, it has become an important marker in studies involving endocrine lineage identity and reproductive tissue-associated neoplasia.

This SF-1 Antibody supports research involving steroidogenic transcriptional regulation, endocrine differentiation pathways, adrenal cortical biology, gonadal development, reproductive signaling, nuclear receptor-associated transcriptional control, and endocrine tumor-associated cellular regulation. Clone NR5A1/3397 may be incorporated into immunohistochemistry and tissue-based investigations examining steroidogenic lineage specification and endocrine-associated transcriptional networks.

Explore additional endocrine differentiation and steroidogenic pathway markers on our Cancer Antibodies landing page, including antibodies targeting nuclear receptor signaling and endocrine-associated tumor biology.

Application Notes

Optimal dilution of the SF-1 Antibody / Steroidogenic Transcription Factor Antibody should be determined by the researcher.

Immunogen

A portion of amino acids 220-461 from human Steroidogenic factor 1 was used as the immunogen for the NR5A1 / SF-1 antibody.

Storage

Store the NR5A1 / SF-1 antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

NR5A1 antibody, SF-1 antibody, Steroidogenic factor 1 antibody, Ad4BP antibody, Nuclear receptor subfamily 5 group A member 1 antibody

Copyright © NSJ Bioreagents. All rights reserved.