For Research Use Only

NR5A1 Polyclonal antibody

Catalog Number:18658-1-AP 18 Publications

proteintech®
Antibodies | ELISA kits | Proteins
www.ptglab.com

Basic Information

Catalog Number:
18658-1-AP

Size:
500 μg/ml

Source:
Rabbit

Isotype:
IgG

Immunogen Catalog Number:
AG13252

GenBank Accession Number:
BC032501

GeneID (NCBI):
2516

UNIPROT ID:
Q13285

Full Name:
nuclear receptor subfamily 5, group A, member 1

Calculated MW:
52 kDa

Observed MW:
52 kDa

Purification Method:
Antigen affinity purification

Recommended Dilutions:
WB 1:500-1:1000
IP 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate
IHC 1:50-1:500

Applications

Tested Applications:
WB, IHC, FC (Intra), IP, ELISA

Cited Applications:
WB, IHC, IF, ChIP

Species Specificity:
human, mouse, rat

Cited Species:
human, mouse, rat, pig, goat, camel, ondatra zibethicus

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Positive Controls:

WB : mouse ovary tissue, rat ovary tissue

IP : A2780 cells,

IHC : human ovary tissue, human liver tissue, rat testis tissue

Background Information

Steroidogenic factor-1 (SF-1,STF-1), also known as NR5A1, regulates multiple genes involved in the adrenal and gonadal development and in the biosynthesis of a variety of hormones, including adrenal and gonadal steroids, anti-Mullerian hormone (AMH), and gonadotropins. SF-1 belongs to the fushi tarazu factor-1 (FTZ-F1) subfamily of orphan nuclear receptors. Initially identified as a tissue-specific transcriptional regulator of cytochrome P450 steroid hydroxylases, research studies of both global and tissue-specific knockout mice have demonstrated that SF-1 is required for the development of adrenal glands, gonads, ventromedial hypothalamus, and for the proper functioning of pituitary gonadotropes. Indeed, humans with mutations that render SF-1 transcriptionally inactive can present with testicular failure, ovarian failure, and adrenal insufficiency. Furthermore, dysregulation of SF-1 has been linked to diseases such as endometriosis and adrenocortical carcinoma.Like other nuclear hormone receptors, SF-1 has a modular domain structure composed of an N-terminal zinc finger DNA-binding domain, a ligand-binding domain, a C-terminal AF-2 activation domain, and a hinge region with AF-1-like activation activity. SF-1 also contains a fushi tarazu factor 1 box, which functions as an accessory DNA binding domain. SF-1 is primarily phosphorylated at Ser203, which is thought to enhance its transcriptional activity by promoting complex formation with transcriptional cofactors. In addition to phosphorylation at Ser203, SF-1 is subject to SUMO conjugation and acetylation at ε-amino groups of target lysine residues. Whereas SUMOylation represses SF-1 function, acetylation enhances its transcriptional activity.In the adult ovary, SF-1 localizes to theca/interstitial cells.

Notable Publications

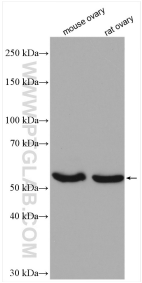
Author	Pubmed ID	Journal	Application
Wenqian Xie	32991988	J Steroid Biochem Mol Biol	IHC
Haibo Zhang	34671938	Reprod Sci	IHC
Jianlin Liang	31710289	Elife	IF

Storage

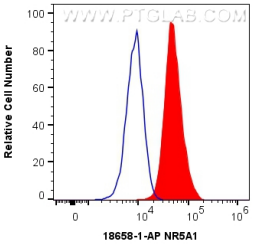
Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:
T: 4006900926 E: Proteintech-CN@ptglab.com W: ptgcn.com

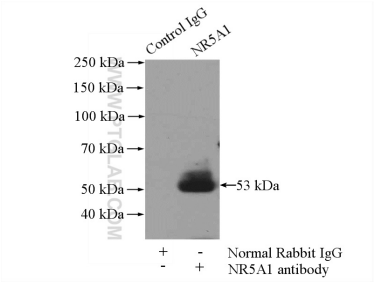
Selected Validation Data



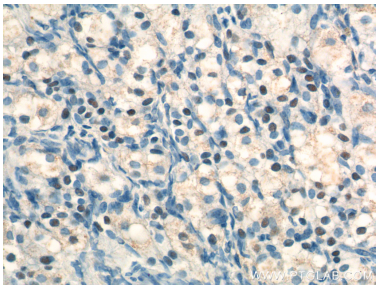
Various lysates were subjected to SDS PAGE followed by western blot with 18658-1-AP (NR5A1 antibody) at dilution of 1:600 incubated at room temperature for 1.5 hours.



1X10^6 HepG2 cells were intracellularly stained with 0.4 ug Anti-Human NR5A1 (18658-1-AP) and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L) at dilution 1:1000 (red), or 0.4 ug Isotype Control. Cells were fixed and permeabilized with Transcription Factor Staining Buffer Kit (PF00011).



IP result of anti-NR5A1 (IP:18658-1-AP, 4ug; Detection:18658-1-AP 1:300) with A2780 cells lysate 960ug.



Immunohistochemical analysis of paraffin-embedded human ovary tissue slide using 18658-1-AP (NR5A1 Antibody) at dilution of 1:100 (under 40x lens).