

# NR5A2 Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP54267

## Product Information

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<b>Application</b>	WB, IHC-P, IHC-F, IF
<b>Primary Accession</b>	<a href="#">O00482</a>
<b>Reactivity</b>	Rat, Bovine
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Calculated MW</b>	61331
<b>Physical State</b>	Liquid
<b>Immunogen</b>	KLH conjugated synthetic peptide derived from human NR5A2/LRH1
<b>Epitope Specificity</b>	151-250/541
<b>Isotype</b>	IgG
<b>Purity</b>	affinity purified by Protein A
<b>Buffer</b>	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
<b>SUBCELLULAR LOCATION</b>	Nucleus.
<b>SIMILARITY</b>	Belongs to the nuclear hormone receptor family. NR5 subfamily. Contains 1 nuclear receptor DNA-binding domain.
<b>Important Note</b>	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
<b>Background Descriptions</b>	NR5A2 is a pre-adipocyte-specific nuclear receptor that regulates expression of aromatase in adipose tissue. NR5A2 belongs to the fushi tarazu factor-1 subfamily of orphan nuclear receptors. NR5A2 transcripts are abundant in the human ovary and testis and are predominantly expressed in tissues of endodermal origin. NR5A2 is a positive transcription factor for ABCG5 and ABCG8 and regulates genes involved in sterol and bile acid secretion from liver and intestine. It induces cell proliferation through the concomitant induction of cyclin D1 and E1, an effect that is potentiated by its interaction with beta-catenin.

## Additional Information

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<b>Gene ID</b>	2494
<b>Other Names</b>	Nuclear receptor subfamily 5 group A member 2, Alpha-1-fetoprotein transcription factor, B1-binding factor, hB1F, CYP7A promoter-binding factor, Hepatocytic transcription factor, Liver receptor homolog 1, LRH-1, NR5A2, B1F, CPF, FTF
<b>Target/Specificity</b>	Abundantly expressed in pancreas, less in liver, very low levels in heart and lung. Expressed in hepG2. Isoform 1 and isoform 2 seem to be present in fetal and adult liver and hepG2 cells.
<b>Dilution</b>	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500

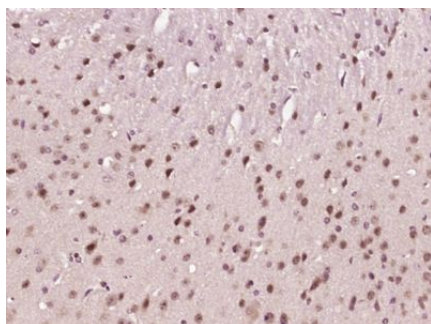
<b>Format</b>	0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce
<b>Storage</b>	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

## Protein Information

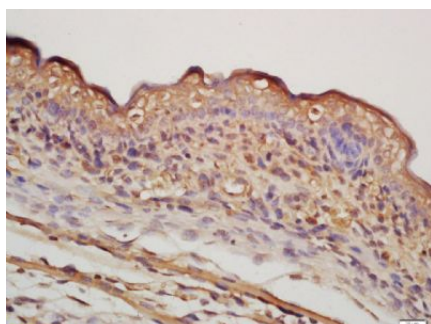
<b>Name</b>	NR5A2 {ECO:0000303 PubMed:11595170, ECO:0000312 HGNC:HGNC:7984}
<b>Function</b>	<p>Orphan nuclear receptor that binds DNA as a monomer to the 5'-TCAAGGCCA-3' sequence and controls expression of target genes: regulates key biological processes, such as early embryonic development, cholesterol and bile acid synthesis pathways, as well as liver and pancreas morphogenesis (PubMed:<a href="#">16289203</a>, PubMed:<a href="#">18410128</a>, PubMed:<a href="#">21614002</a>, PubMed:<a href="#">32433991</a>, PubMed:<a href="#">38409506</a>, PubMed:<a href="#">9786908</a>). Ligand-binding causes conformational change which causes recruitment of coactivators, promoting target gene activation (PubMed:<a href="#">21614002</a>). The specific ligand is unknown, but specific phospholipids, such as phosphatidylethanolamine, phosphatidylserine, dilauroyl phosphatidylcholine and diundecanoyl phosphatidylcholine can act as ligand in vitro (PubMed:<a href="#">15707893</a>, PubMed:<a href="#">15723037</a>, PubMed:<a href="#">15897460</a>, PubMed:<a href="#">21614002</a>, PubMed:<a href="#">22504882</a>, PubMed:<a href="#">23737522</a>, PubMed:<a href="#">26416531</a>, PubMed:<a href="#">26553876</a>). Acts as a pioneer transcription factor, which unwraps target DNA from histones and elicits local opening of closed chromatin (PubMed:<a href="#">38409506</a>). Plays a central role during preimplantation stages of embryonic development (By similarity). Plays a minor role in zygotic genome activation (ZGA) by regulating a small set of two-cell stage genes (By similarity). Plays a major role in morula development (2-16 cells embryos) by acting as a master regulator at the 8-cell stage, controlling expression of lineage-specifying transcription factors and genes involved in mitosis, telomere maintenance and DNA repair (By similarity). Zygotic NR5A2 binds to both closed and open chromatin with other transcription factors, often at SINE B1/Alu repeats DNA elements, promoting chromatin accessibility at nearby regulatory regions (By similarity). Also involved in the epiblast stage of development and embryonic stem cell pluripotency, by promoting expression of POU5F1/OCT4 (PubMed:<a href="#">27984042</a>). Regulates other processes later in development, such as formation of connective tissue in lower jaw and middle ear, neural stem cell differentiation, ovarian follicle development and Sertoli cell differentiation (By similarity). Involved in exocrine pancreas development and acinar cell differentiation (By similarity). Acts as an essential transcriptional regulator of lipid metabolism (PubMed:<a href="#">20159957</a>). Key regulator of cholesterol 7-alpha- hydroxylase gene (CYP7A) expression in liver (PubMed:<a href="#">10359768</a>). Also acts as a negative regulator of inflammation in different organs, such as, liver and pancreas (PubMed:<a href="#">20159957</a>). Protects against intestinal inflammation via its ability to regulate glucocorticoid production (By similarity). Plays an anti-inflammatory role during the hepatic acute phase response by acting as a corepressor: inhibits the hepatic acute phase response by preventing dissociation of the N-Cor corepressor complex (PubMed:<a href="#">20159957</a>). Acts as a regulator of immunity by promoting lymphocyte T-cell development, proliferation and effector functions (By similarity). Also involved in resolution of endoplasmic reticulum stress in the liver (By similarity).</p>
<b>Cellular Location</b>	Nucleus. Chromosome
<b>Tissue Location</b>	Abundantly expressed in pancreas, less in liver, very low levels in heart and lung. Expressed in the Hep-G2 cell line (PubMed: <a href="#">9786908</a> ). Isoform 1 and

isoform 2 seem to be present in fetal and adult liver and Hep-G2 cells  
(PubMed:10359768)

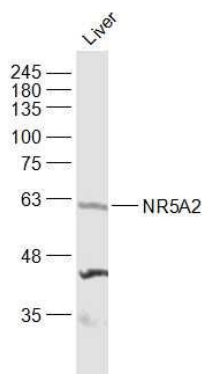
## Images



Paraformaldehyde-fixed, paraffin embedded (Mouse brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (NR5A2) Polyclonal Antibody, Unconjugated (AP54267) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Tissue/cell: mouse embryo tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;  
Antigen retrieval: citrate buffer ( 0.01M, pH 6.0 ), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;  
Incubation: Anti-NR5A2 Polyclonal Antibody, Unconjugated(AP54267) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Sample:  
Liver(Rat) Lysate at 40 ug  
Primary: Anti-NR5A2 (AP54267) at 1/1000 dilution  
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution  
Predicted band size: 61 kD  
Observed band size: 61 kD

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.