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NR5A2 / LRH1 Antibody (internal region)

Peptide-affinity purified goat antibody
Catalog # AF4048a

Specification

NR5A2 / LRH1 Antibody (internal region) - Product Information

Application	**WB**
Primary Accession	O00482
Other Accession	NP_995582.1, NP_003813.1, 2494, 26424 (mouse), 60349 (rat)
Reactivity	**Human**
Predicted	**Mouse, Rat, Pig, Dog**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**0.5 mg/ml**
Isotype	**IgG**
Calculated MW	**61331**

NR5A2 / LRH1 Antibody (internal region) - Additional Information

Gene ID 2494

Other Names
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

Format
0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
NR5A2 / LRH1 Antibody (internal region) is for research use only and not for use in diagnostic or therapeutic procedures.

NR5A2 / LRH1 Antibody (internal region) - Protein Information

Name NR5A2 {ECO:0000303|PubMed:11595170, ECO:0000312|HGNC:HGNC:7984}

Function
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="http://www.uniprot.org/citations/16289203"

target="_blank">16289203, PubMed:18410128, PubMed:21614002, PubMed:32433991, PubMed:38409506, PubMed:9786908). Ligand-binding causes conformational change which causes recruitment of coactivators, promoting target gene activation (PubMed:21614002). The specific ligand is unknown, but specific phospholipids, such as phosphatidylethanolamine, phosphatidylserine, dilauroyl phosphatidylcholine and diundecanoyl phosphatidylcholine can act as ligand in vitro (PubMed:15707893, PubMed:15723037, PubMed:15897460, PubMed:21614002, PubMed:22504882, PubMed:23737522, PubMed:26416531, PubMed:26553876). Acts as a pioneer transcription factor, which unwraps target DNA from histones and elicits local opening of closed chromatin (PubMed:38409506). 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:27984042). 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:20159957). Key regulator of cholesterol 7-alpha- hydroxylase gene (CYP7A) expression in liver (PubMed:10359768). Also acts as a negative regulator of inflammation in different organs, such as, liver and pancreas (PubMed:20159957). 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:20159957). 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).

Cellular Location
Nucleus. Chromosome

Tissue Location
Abundantly expressed in pancreas, less in liver, very low levels in heart and lung. Expressed in the Hep-G2 cell line (PubMed:9786908). Isoform 1 and isoform 2 seem to be present in fetal and adult liver and Hep-G2 cells (PubMed:10359768)

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NR5A2 / LRH1 Antibody (internal region) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

NR5A2 / LRH1 Antibody (internal region) - Images

AF4048a (1 µg/ml) staining of HepG2 nuclear lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

NR5A2 / LRH1 Antibody (internal region) - Background

This antibody is expected to recognize both reported isoforms (NP_995582.1; NP_003813.1).

NR5A2 / LRH1 Antibody (internal region) - References

Structural basis of coactivation of liver receptor homolog-1 by ?-catenin. Yumoto F, Nguyen P, Sablin EP, Baxter JD, Webb P, Fletterick RJ. Proc Natl Acad Sci U S A. 2012 Jan 3;109(1):143-8. PMID: 22187462