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NR5A2 / LRH-1 Antibody (C-Terminus)

Rabbit Polyclonal Antibody
Catalog # ALS10549

Product Information

Application	IHC-P
Primary Accession	O00482
Reactivity	Human, Monkey, Pig, Bovine, Dog, Horse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	61331
Dilution	IHC-P (7 g/ml)
Concentration (mg/ml)	1 mg/ml

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
Target/Specificity	Human NR5A2. BLAST analysis of the peptide immunogen showed no homology with other human proteins.
Reconstitution & Storage	Long term: -70°C; Short term: +4°C
Precautions	NR5A2 / LRH-1 Antibody (C-Terminus) is for research use only and not for use in diagnostic or therapeutic procedures.

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: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)
Volume	Array

Background

Binds to the sequence element 5'-AACGACCGACCTTGAG-3' of the enhancer II of hepatitis B virus genes, a critical cis-element of their expression and regulation. May be responsible for the liver-specific activity of enhancer II, probably in combination with other hepatocyte transcription factors. Key regulator of cholesterol 7-alpha-hydroxylase gene (CYP7A) expression in liver. May also contribute to the regulation of pancreas-specific genes and play important roles in embryonic development.

References

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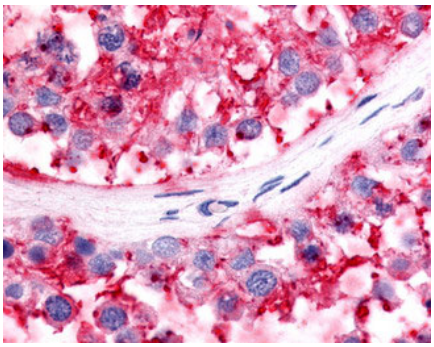
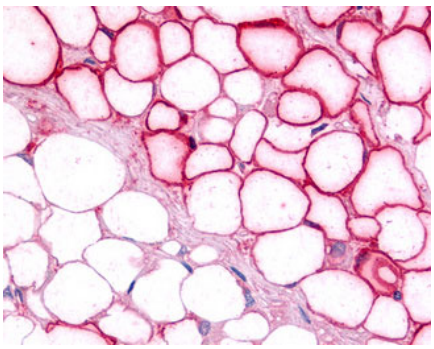
Li M.,et al.Submitted (JAN-1999) to the EMBL/GenBank/DDBJ databases.
Nitta M.,et al.Proc. Natl. Acad. Sci. U.S.A. 96:6660-6665(1999).
Zhang C.K.,et al.Gene 273:239-249(2001).
Ota T.,et al.Nat. Genet. 36:40-45(2004).

Images



Anti-LRH-1 / NR5A2 antibody IHC of human testis.



Anti-LRH-1 / NR5A2 antibody IHC of human adipocytes.

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