10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

NR5A2 Antibody

Rabbit mAb
Catalog # AP91324

Product Information

Application	WB
Primary Accession	O00482
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Other Names	B1-binding factor; B1F2; CPF; CYP7A promoter-binding factor; FTF; FTZ F1; FTZ F1beta; FTZ-F1; FTZ-F1beta; hB1F 2; hB1F-2; LRH1; Nr5a2;
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	61331

Additional Information

Dilution	WB 1:500~1:2000
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human NR5A2
Description	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.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

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).

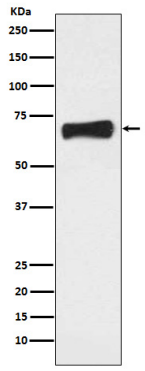
Cellular Location

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)

Images



Western blot analysis of NR5A2 expression in MCF7 cell lysate.

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