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NR1H3 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP9952A

Specification

NR1H3 Antibody (Center) - Product Information

Application	**IF, WB, FC,E**
Primary Accession	Q13133
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Antigen Region	**226-253**

NR1H3 Antibody (Center) - Additional Information

Gene ID 10062

Other Names
Oxysterols receptor LXR-alpha, Liver X receptor alpha, Nuclear receptor subfamily 1 group H member 3, NR1H3, LXRA

Target/Specificity
This NR1H3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 226-253 amino acids from the Central region of human NR1H3.

Dilution
IF~~1:10~50
WB~~1:1000
FC~~1:10~50

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

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

Precautions
NR1H3 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

NR1H3 Antibody (Center) - Protein Information

Name NR1H3

Synonyms LXRA

Function Nuclear receptor that exhibits a ligand-dependent transcriptional activation activity (PubMed:19481530, PubMed:25661920, PubMed:37478846). Interaction with retinoic acid receptor (RXR) shifts RXR from its role as a silent DNA-binding partner to an active ligand- binding subunit in mediating retinoid responses through target genes defined by LXRES (PubMed:37478846). LXRES are DR4-type response elements characterized by direct repeats of two similar hexanuclotide half-sites spaced by four nucleotides (By similarity). Plays an important role in the regulation of cholesterol homeostasis, regulating cholesterol uptake through MYLIP-dependent ubiquitination of LDLR, VLDLR and LRP8 (PubMed:19481530). Interplays functionally with RORA for the regulation of genes involved in liver metabolism (By similarity). Induces LPCAT3-dependent phospholipid remodeling in endoplasmic reticulum (ER) membranes of hepatocytes, driving SREBF1 processing and lipogenesis (By similarity). Via LPCAT3, triggers the incorporation of arachidonate into phosphatidylcholines of ER membranes, increasing membrane dynamics and enabling triacylglycerols transfer to nascent very low-density lipoprotein (VLDL) particles. Via LPCAT3 also counteracts lipid-induced ER stress response and inflammation, likely by modulating SRC kinase membrane compartmentalization and limiting the synthesis of lipid inflammatory mediators (By similarity).

Cellular Location
Nucleus {ECO:0000255|PROSITE-ProRule:PRU00407, ECO:0000269|PubMed:25661920}. Cytoplasm {ECO:0000250|UniProtKB:Q9Z0Y9}

Tissue Location
Visceral organs specific expression. Strong expression was found in liver, kidney and intestine followed by spleen and to a lesser extent the adrenals

NR1H3 Antibody (Center) - 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

NR1H3 Antibody (Center) - Images

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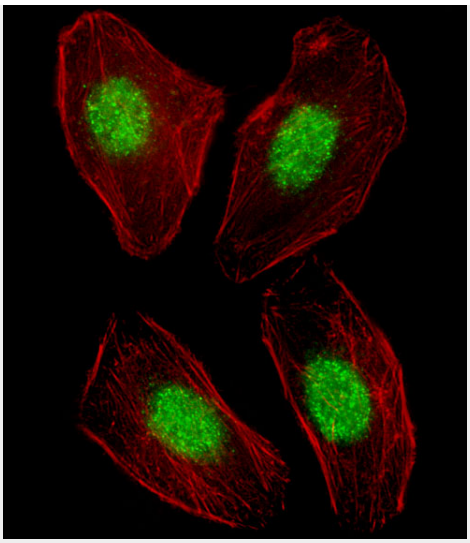
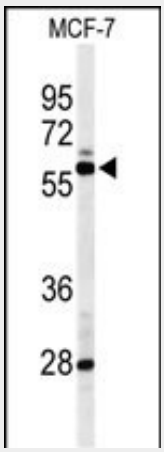
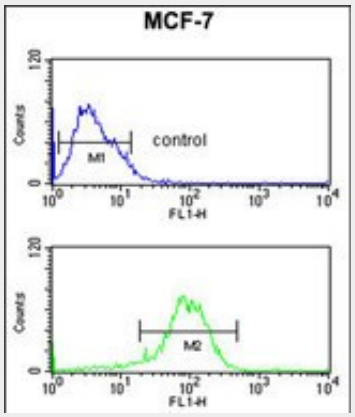


Fluorescent image of U251 cell stained with NR1H3 Antibody (Center)(Cat#AP9952a).U251 cells were fixed with 4% PFA (20 min), permeabilized with Triton X-100 (0.1%, 10 min), then incubated with NR1H3 primary antibody (1:25, 1 h at 37℃). For secondary antibody, Alexa Fluor® 488 conjugated donkey anti-rabbit antibody (green) was used (1:400, 50 min at 37℃).Cytoplasmic actin was counterstained with Alexa Fluor® 555 (red) conjugated Phalloidin (7units/ml, 1 h at 37℃).NR1H3 immunoreactivity is localized to Nucleus significantly.



Western blot analysis of NR1H3 Antibody (Center) (Cat. #AP9952a) in MCF-7 cell line lysates (35ug/lane). NR1H3 (arrow) was detected using the purified Pab.



NR1H3 Antibody (Center) (Cat. #AP9952a) flow cytometric analysis of MCF-7 cells (bottom histogram) compared to a negative control cell (top histogram).FITC-conjugated goat-anti-rabbit

secondary antibodies were used for the analysis.

NR1H3 Antibody (Center) - Background

NR1H3 form a subfamily of the nuclear receptor superfamily and are key regulators of macrophage function, controlling transcriptional programs involved in lipid homeostasis and inflammation. The inducible LXRA is highly expressed in liver, adrenal gland, intestine, adipose tissue, macrophages, lung, and kidney, whereas LXRB is ubiquitously expressed. Ligand-activated LXRs form obligate heterodimers with retinoid X receptors (RXRs; see MIM 180245) and regulate expression of target genes containing LXR response elements.

NR1H3 Antibody (Center) - References

Davila, S., et al. Genes Immun. 11(3):232-238(2010)
Nedumaran, B., et al. J. Biol. Chem. 285(12):9221-9232(2010)
Zhao, C., et al. J. Endocrinol. 204(3):233-240(2010)
Anthonisen, E.H., et al. J. Biol. Chem. 285(3):1607-1615(2010)