

LXR alpha Antibody

Rabbit mAb Catalog # AP91296

Product Information

Application WB, IF, FC, ICC **Primary Accession** Q13133

Reactivity Rat, Human, Mouse

Clonality Monoclonal

Other Names Liver X receptor alpha; LXR a; LXRA; NR1H3; RLD1;

IsotypeRabbit IgGHostRabbitCalculated MW50396

Additional Information

Dilution WB 1:500~1:2000 ICC/IF 1:50~1:200 FC 1:50

Purification Affinity-chromatography

Immunogen A synthesized peptide derived from human LXR alpha

Description Orphan receptor. Interaction with 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. LXRES are DR4-type response elements characterized by direct repeats of two similar

hexanuclotide half-sites spaced by four nucleotides. Plays an important role

in the regulation of cholesterol homeostasis, regulating cholesterol uptake

through MYLIP-dependent ubiquitination of LDLR, VLDLR and LRP8.

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 NR1H3

Synonyms LXRA

Function Nuclear receptor that exhibits a ligand-dependent transcriptional activation

activity (PubMed: <u>19481530</u>, PubMed: <u>25661920</u>, PubMed: <u>37478846</u>).

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).

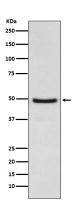
Cellular Location

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

Images



Western blot analysis of LXR alpha expression in Jurkat cell lysate.

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