

Anti-LXR Alpha Antibody

Catalog # ABO10622

Specification

Anti-LXR Alpha Antibody - Product Information

ApplicationWBPrimary Accession013133HostRabbitReactivityHuman, Mouse, RatClonalityPolyclonalFormatLyophilizedDescriptionRabbit IgG polyclonal antibody for Oxysterols receptor LXR-alpha(NR1H3) detection. Tested withWB in Human;Mouse;Rat.WB

Reconstitution Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-LXR Alpha Antibody - 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

Calculated MW 50396 MW KDa

Application Details Western blot, 0.1-0.5 μg/ml, Human, Rat, Mouse

Subcellular Localization Nucleus .

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

Protein Name Oxysterols receptor LXR-alpha

Contents Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3.

Immunogen A synthetic peptide corresponding to a sequence at the C-terminus of human LXR alpha(371-385aa NVQDQLQVERLQHTY), identical to the related rat and mouse sequences.



Purification Immunogen affinity purified.

Cross Reactivity No cross reactivity with other proteins

Storage

At -20°C for one year. After r°Constitution, at 4°C for one month. It°Can also be aliquotted and stored frozen at -20°C for a longer time.Avoid repeated freezing and thawing.

Sequence Similarities

Belongs to the nuclear hormone receptor family. NR1 subfamily.

Anti-LXR Alpha Antibody - 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" target="blank">25661920).

target="_blank">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

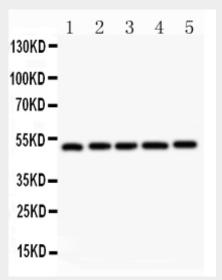
Anti-LXR Alpha Antibody - Protocols

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



- <u>Western Blot</u>
- <u>Blocking Peptides</u>
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

Anti-LXR Alpha Antibody - Images



Anti- NR1H3 antibody, ABO10622, Western blottingAll lanes: Anti NR1H3 (ABO10622) at 0.5ug/mlLane 1: Rat Liver Tissue Lysate at 50ugLane 2: Rat Lung Tissue Lysate at 50ugLane 3: Rat Spleen Tissue Lysate at 50ugLane 4: Rat Kidney Tissue Lysate at 50ugLane 5: Human Placenta Tissue Lysate at 50ugPredicted bind size: 51KDObserved bind size: 51KD

Anti-LXR Alpha Antibody - Background

LXRA is a tissue-specific cofactor that permits RXRA to function as a potent 9cRA receptor with a distinct target gene specificity. It specifically interacts with RXRA in vivo to form a functional heterodimer in which RXRA is the ligand-binding subunit. Additionally, LXR activity is critical for physiologic lipid metabolism and transport. LXRs are endogenous inhibitors of atherogenesis and are targets for therapeutic intervention in cardiovascular disease. Furthermore, LXRs and their ligands are negative regulators of macrophage inflammatory gene expression. LXR is also found that as a transcriptional switch that integrates hepatic glucose metabolism and fatty acid synthesis. The LXR-IDOL-LDLR axis defines a complementary pathway to sterol response element-binding proteins for sterol regulation of cholesterol uptake.