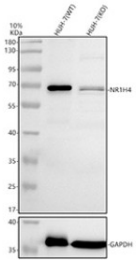
NR1H4 Antibody / Farnesoid X Receptor Antibody (R32869)

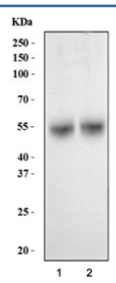
Catalog No.	Formulation	Size
R32869	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

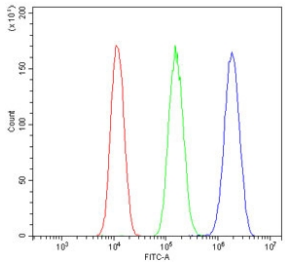
Species Reactivity	Human
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2.5% BSA, 0.025% sodium azide
UniProt	Q96RI1
Applications	Western Blot: 0.5-1ug/ml Immunofluorescence: 2-4ug/ml Flow cytometry: 1-3ug/million cells
Limitations	This NR1H4 Antibody / Farnesoid X Receptor Antibody is available for research use only.



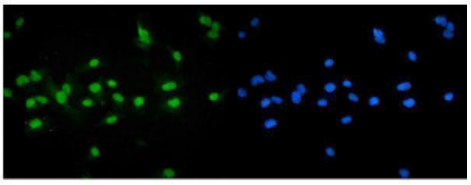
NR1H4 Antibody WB Analysis of Huh-7 Wild-Type and Knockout Cells. Western blot analysis of human Huh-7 wild-type (WT, lane 1) and NR1H4 knockout (KO, lane 2) whole-cell lysates using Farnesoid X Receptor Antibody at 0.5 ug/ml. A prominent band is detected near 56 kDa in WT lysate and is absent in KO lysate, supporting antibody specificity for NR1H4. Each lane contains 30 ug of protein under reducing conditions. GAPDH serves as the loading control.



NR1H4 Antibody WB Analysis of Human HCCT and HCCP Cell Lysates. Western blot analysis of human HCCT (lane 1) and HCCP (lane 2) cell lysates using Farnesoid X Receptor Antibody at 0.5 ug/ml. Immunoreactive bands are detected near 54-56 kDa in both samples, consistent with the expected molecular weight of NR1H4.



NR1H4 Antibody Flow Cytometry Analysis of Human A549 Cells. Flow cytometry analysis of human A549 cells using Farnesoid X Receptor Antibody at 1 ug per million cells following blocking with goat serum. The blue histogram represents antibody staining, the green histogram represents the isotype control, and the red histogram represents unstained cells. A rightward fluorescence shift is observed in the antibody-stained population.



NR1H4 Antibody IF Staining of Human A549 Cells. Immunofluorescence analysis of FFPE human A549 cells using Farnesoid X Receptor Antibody at 2 ug/ml. Green fluorescence shows NR1H4-associated staining in the cells, with blue DAPI nuclear counterstaining. Heat-induced epitope retrieval was performed by steaming in citrate buffer (pH 6) for 20 minutes.

Description

NR1H4 Antibody / Farnesoid X Receptor Antibody targets NR1H4, a ligand-activated nuclear receptor commonly known as farnesoid X receptor (FXR) or bile acid receptor (BAR). NR1H4 belongs to the nuclear receptor superfamily and functions as a transcriptional regulator of bile acid synthesis, transport, and metabolic homeostasis. Bile acids serve as endogenous FXR ligands, allowing the receptor to function as a metabolic sensor that coordinates gene expression with changes in bile acid availability.

FXR contains a conserved DNA-binding domain and a ligand-binding domain that mediates interactions with bile acids and transcriptional coregulators. Following activation, FXR commonly forms heterodimers with retinoid X receptor (RXR) and binds specific regulatory elements within target genes. These interactions influence transcriptional programs controlling bile acid transport, lipid metabolism, and cellular responses to metabolic stress. The receptor also recruits coactivators and corepressors that determine the magnitude and direction of transcriptional responses.

A central function of NR1H4 is maintaining bile acid homeostasis through negative feedback regulation. Hepatic FXR activation induces the nuclear receptor SHP (NR0B2), which contributes to suppression of CYP7A1, a rate-limiting enzyme in the classical bile acid synthesis pathway. Intestinal FXR stimulates production of fibroblast growth factor 19 (FGF19), which signals to the liver through the FGFR4-beta-Klotho receptor complex and further suppresses bile acid synthesis. These complementary pathways help prevent excessive bile acid accumulation and associated cellular injury.

Beyond bile acid regulation, FXR influences cholesterol metabolism, triglyceride homeostasis, glucose handling, and inflammatory signaling. Its transcriptional activity affects metabolic pathways involved in lipid synthesis, transport, and utilization. NR1H4 also contributes to maintaining intestinal barrier function and regulating inflammatory responses associated with metabolic and hepatobiliary disorders. Altered FXR signaling has been investigated in cholestatic liver disease, metabolic dysfunction-associated steatotic liver disease, and other conditions involving disrupted bile acid metabolism.

NR1H4 Antibody supports investigations into the molecular regulation of FXR and its contributions to metabolic signaling. Understanding how NR1H4 expression and transcriptional activity respond to changing bile acid concentrations provides insight into the mechanisms connecting enterohepatic circulation, lipid metabolism, and liver health.

Explore additional metabolic regulators in our Metabolism Antibodies collection, featuring proteins involved in bile acid homeostasis, lipid metabolism, and cellular energy regulation.

Application Notes

Optimal dilution of the NR1H4 Antibody / Farnesoid X Receptor Antibody should be determined by the researcher.

Immunogen

Amino acids 442-486 (QHFACLLGRLTELRTFNHHHAEMLMSWRVNDHKFTPLLCEIWDVQ) were used as the immunogen for the NR1H4 antibody.

Storage

After reconstitution, the NR1H4 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

Farnesoid X receptor antibody, Bile acid receptor antibody, Nuclear receptor subfamily 1 group H member 4 antibody, FXR antibody, BAR antibody, NR1H4 antibody, Farnesol receptor antibody, Retinoid X receptor-interacting protein 14 antibody, RIP14 antibody

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