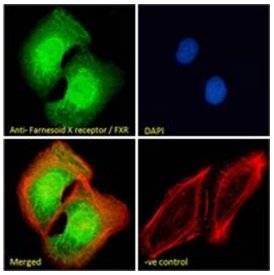
FXR Antibody / Bile Acid Receptor Polyclonal Antibody (R34640)

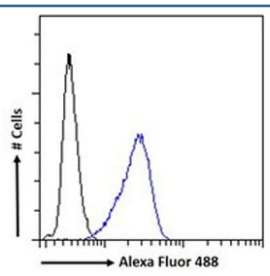
Catalog No.	Formulation	Size
R34640-100UG	0.5 mg/ml in 1X TBS, pH7.3, with 0.5% BSA (US sourced) and 0.02% sodium azide	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Antigen affinity purified
Host	Goat
Clonality	Polyclonal (goat origin)
Isotype	Goat Ig
Purity	Antigen affinity
Gene ID	9971
Applications	Immunofluorescence: 10ug/ml Flow cytometry: 10ug/million cells
Limitations	This FXR Antibody / Bile Acid Receptor Polyclonal Antibody is available for research use only.



FXR Antibody IF Staining of Human U-2 OS Cells. Immunofluorescence analysis of fixed and permeabilized human U-2 OS cells using Bile Acid Receptor Polyclonal Antibody at 10 ug/ml. Green fluorescence indicates FXR-associated staining, red phalloidin staining identifies filamentous actin, and blue DAPI counterstaining identifies nuclei. The merged image shows predominantly extranuclear green fluorescence, including a perinuclear distribution.



FXR Antibody Flow Cytometry Analysis of Human U-2 OS Cells. Flow cytometry analysis of fixed and permeabilized human U-2 OS cells using Bile Acid Receptor Polyclonal Antibody at 10 ug per million cells in 0.2 ml. The blue histogram represents FXR antibody staining, while the black histogram represents the naive goat immunoglobulin control. A distinct rightward fluorescence shift is observed in the antibody-stained population relative to the control.

Description

FXR Antibody / Bile Acid Receptor Polyclonal Antibody targets farnesoid X receptor (FXR), a ligand-activated transcription factor encoded by the NR1H4 gene. FXR belongs to the nuclear receptor superfamily and functions as an intracellular sensor of bile acid availability. Through its ability to regulate gene transcription in response to endogenous bile acids, FXR coordinates metabolic processes that maintain bile acid balance and influence cholesterol, lipid, and glucose homeostasis.

Bile acids are synthesized from cholesterol and participate in intestinal lipid absorption, but they also act as signaling molecules that regulate metabolic activity. FXR responds to several naturally occurring bile acids, including chenodeoxycholic acid, which is a potent endogenous activator. Ligand binding promotes conformational changes within the receptor that influence interactions with transcriptional coregulators. FXR commonly forms heterodimers with retinoid X receptor (RXR), allowing the complex to recognize specific DNA response elements and regulate the expression of genes involved in bile acid transport and metabolism.

A major function of FXR is coordinating the enterohepatic circulation of bile acids. Activation of intestinal FXR stimulates expression of fibroblast growth factor 19 (FGF19), which participates in endocrine signaling between the intestine and liver. Hepatic FXR also induces small heterodimer partner (SHP), an atypical nuclear receptor that contributes to repression of bile acid synthesis. Together, these regulatory mechanisms limit excessive bile acid production and help protect cells from the potentially damaging effects of elevated intracellular bile acid concentrations.

FXR additionally influences metabolic pathways beyond bile acid regulation. Its transcriptional targets participate in triglyceride metabolism, cholesterol transport, and glucose homeostasis. FXR signaling can also modulate inflammatory responses and epithelial barrier function, linking bile acid sensing to broader aspects of tissue physiology. Dysregulated FXR activity has been investigated in cholestatic disorders, metabolic dysfunction-associated steatotic liver disease, and other conditions involving altered lipid metabolism or bile acid signaling.

Research involving FXR Antibody contributes to understanding how NR1H4 expression relates to transcriptional control of metabolic pathways. The receptor's integration of bile acid sensing, endocrine communication, and inflammatory regulation makes it an important component of the molecular mechanisms governing metabolic homeostasis.

For additional research into farnesoid X receptor signaling, explore our NR1H4 Antibody, which features knockout-validated Western blot analysis and complementary cellular staining data.

Application Notes

Optimal dilution of the FXR Antibody / Bile Acid Receptor Polyclonal Antibody should be determined by the researcher.

Immunogen

Amino acids KSCREKTELTPDQQ were used as the immunogen for this FXR antibody.

Storage

Aliquot and store the FXR antibody at -20oC.

Alternate Names

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

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