

Rabbit NR1H4 Polyclonal Antibody | anti-NR1H4 antibody

NR1H4 Antibody

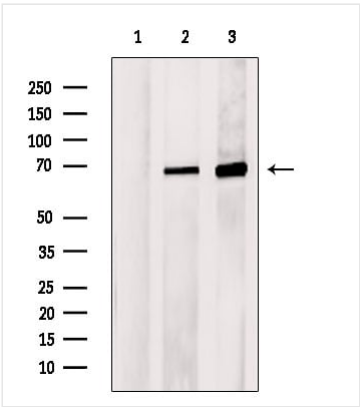
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA328613	Rabbit	Human, RatPredicted: Pig, Bovine, Horse, Sheep, Rabbit, Dog	Western Blot

PRODUCT SYNONYMS

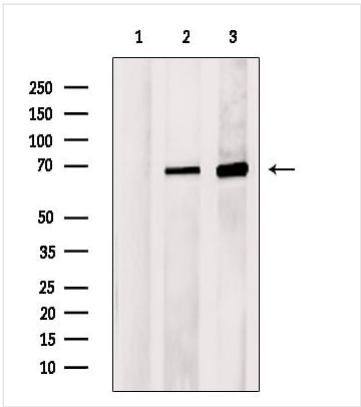
NR1H4; Polyclonal Antibody; NR1H4 Antibody; BAR; Bile acid receptor; Farnesoid X activated receptor; Farnesoid X receptor; Farnesoid X-activated receptor; Farnesol receptor HRR 1; Farnesol receptor HRR-1; Farnesol receptor HRR1; FXR; HRR 1; HRR1; NR1H4_HUMAN; Nuclear receptor subfamily 1 group H member 4; Retinoid X receptor interacting protein 14; Retinoid X receptor-interacting protein 14; RIP 14; RIP14; RXR interacting protein 14; RXR-interacting protein 14; anti-NR1H4 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Rat Predicted: Pig, Bovine, Horse, Sheep, Rabbit, Dog
Clonality	Polyclonal
Isotype	IgG
Specificity	NR1H4 Antibody detects endogenous levels of NR1H4.
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin (Thermo Fisher Scientific).
Form/Format	Liquid; Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	476
Applicable Applications for anti-NR1H4 antibody	WB (Western Blot)
Immunogen	A synthesized peptide derived from human NR1H4.
Tissue Specificity	Liver and hepatocyte-related cells express mainly FXRalpha1-type isoforms with isoform 3 and isoform 4 in approximately equal proportions. In intestine and kidney mainly FXRalpha2-type isoforms are expressed with isoform 1 and isoform 2 in approximately equal proportions. Expressed in pancreatic beta cells and macrophages.
Fragment	Fab Fragment
Conjugate	Unconjugated
Subcellular Location	Nucleus; Nucleus; Nucleus; Nucleus; Nucleus
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.



WB (Western Blot)
Western blot analysis of extracts from various samples, using NR1H4 Antibody. Lane 1: 293, treated with blocking peptide; Lane 2: 293; Lane 3: HeLa cells.



WB (Western Blot)
Western blot analysis of extracts from HeLa cells, using NR1H4 Antibody. The lane on the left was treated with blocking peptide.

Related Product Information for anti-NR1H4 antibody

Description: Ligand-activated transcription factor. Receptor for bile acids (BAs) such as chenodeoxycholic acid (CDCA), lithocholic acid, deoxycholic acid (DCA) and allocholic acid (ACA). Plays a essential role in BA homeostasis through the regulation of genes involved in BA synthesis, conjugation and enterohepatic circulation. Also regulates lipid and glucose homeostasis and is involved innate immune response (PubMed:10334992, PubMed:10334993, PubMed:21383957, PubMed:22820415). The FXR-RXR heterodimer binds predominantly to farnesoid X receptor response elements (FXREs) containing two inverted repeats of the consensus sequence 5'-AGGTCA-3' in which the monomers are spaced by 1 nucleotide (IR-1) but also to tandem repeat DR1 sites with lower affinity, and can be activated by either FXR or RXR-specific ligands. It is proposed that monomeric nuclear receptors such as NR5A2/LRH-1 bound to coregulatory nuclear responsive element (NRE) halvesites located in close proximity to FXREs modulate transcriptional activity (By similarity). In the liver activates transcription of the corepressor NR0B2 thereby indirectly inhibiting CYP7A1 and CYP8B1 (involved in BA synthesis) implicating at least in part histone demethylase KDM1A resulting in epigenomic repression, and SLC10A1/NTCP (involved in hepatic uptake of conjugated BAs). Activates transcription of the repressor MAFG (involved in regulation of BA synthesis) (By similarity). Activates transcription of SLC27A5/BACS and BAAT (involved in BA conjugation), ABCB11/BSEP (involved in bile salt export) by directly recruiting histone methyltransferase CARM1, and ABCC2/MRP2 (involved in secretion of conjugated BAs) and ABCB4 (involved in secretion of phosphatidylcholine in the small intestine) (PubMed:12754200, PubMed:15471871, PubMed:17895379). Activates transcription of SLC27A5/BACS and BAAT (involved in BA conjugation), ABCB11/BSEP (involved in bile salt export) by directly recruiting histone methyltransferase CARM1, and ABCC2/MRP2 (involved in secretion of conjugated BAs) and ABCB4 (involved in secretion of phosphatidylcholine in the small intestine) (PubMed:10514450, PubMed:15239098, PubMed:16269519). In the intestine activates FGF19 expression and secretion leading to hepatic CYP7A1 repression (PubMed:12815072, PubMed:19085950). The function also involves the coordinated induction of hepatic KLB/beta-klotho expression (By similarity). Regulates transcription of liver UGT2B4 and SULT2A1 involved in BA detoxification; binding to the UGT2B4 promoter seems to imply a monomeric transactivation independent of RXRA (PubMed:12806625, PubMed:16946559). Modulates lipid homeostasis by activating liver NR0B2/SHP-mediated repression of SREBF1 (involved in de novo lipogenesis), expression of PLTP (involved in HDL formation), SCARB1 (involved in HDL hepatic uptake), APOE, APOC1, APOC4, PPARG (involved in beta-oxidation of fatty acids), VLDLR and SDC1 (involved in the hepatic uptake of LDL and IDL remnants), and inhibiting expression of MTTP (involved in VLDL assembly (PubMed:12660231, PubMed:12554753, PubMed:15337761). Increases expression of APOC2 (promoting lipoprotein lipase activity implicated in triglyceride clearance) (PubMed:11579204). Transrepresses APOA1 involving a monomeric competition with NR2A1 for binding to a DR1 element (PubMed:11927623, PubMed:21804189). Also reduces triglyceride clearance by inhibiting expression of ANGPTL3 and APOC3 (both involved in inhibition of lipoprotein lipase) (PubMed:12891557). Involved in glucose homeostasis by modulating hepatic gluconeogenesis through activation of NR0B2/SHP-mediated repression of respective genes. Modulates glycogen synthesis (inducing phosphorylation of glycogen synthase kinase-3) (By similarity). Modulates glucose-stimulated insulin secretion and is involved in insulin resistance (PubMed:20447400). Involved in intestinal innate immunity. Plays a role in protecting the distal small intestine against bacterial overgrowth and preservation of the epithelial barrier (By similarity). Down-regulates inflammatory cytokine expression in several types of immune cells including macrophages and mononuclear cells (PubMed:21242261). Mediates trans-repression of TLR4-induced cytokine expression; the function seems to require its sumoylation and prevents N-CoR nuclear receptor corepressor clearance from target genes such as IL1B and NOS2 (PubMed:19864602). Involved in the TLR9-mediated protective mechanism in intestinal inflammation. Plays an anti-inflammatory role in liver inflammation; proposed to inhibit proinflammatory (but not antiapoptotic) NF-kappa-B signaling) (By similarity).

Post Translational Modifications: Acetylated by EP300. Lys-227 as is the major acetylation site for EP300; the dynamically regulated acetylation inhibits heterodimerization with RXRA and transactivation activity. Deacetylated by SIRT1. Methylation may increase transactivation of target genes. Phosphorylation by PKC/PRKCA increases transactivation activity by promoting association with PPARGC1A. Sumoylated upon ligand binding.

Subunit Structure: Binds DNA predominantly as a heterodimer with RXRA. After activation by agonist binding interacts with coactivators. Interacts with NCOA1, NCOA2, PPARGC1A, CARM1, SETD7, PRMT1, GPS2, SMARCA4 and MED1 (PubMed:15202934, PubMed:14684751, PubMed:15187081, PubMed:15471871, PubMed:15911693, PubMed:17895379, PubMed:18755856, PubMed:19805516, PubMed:23462506, PubMed:12718892, PubMed:12718893, PubMed:18621523, PubMed:18391212, PubMed:19410460, PubMed:19586769). Interacts with EP300 and SMARCD1 (By similarity). Interacts with XRCC5 and XRCC6; decreasing NR1H4/FXR transactivation activity towards ABCB11/BSEP (PubMed:19833092). Interacts with PAGR1 AND NCOA6; indicative for an association with an MLL2/MLL3 complex (ASCOM) (PubMed:19556342).

Similarity: Belongs to the nuclear hormone receptor family. NR1 subfamily.

NCBI AND UNIPROT INFORMATION

NCBI GI #	332801015
NCBI GeneID	9971
NCBI Accession #	NP_001193906
NCBI GenBank Nucleotide #	NP_001193906.1
UniProt Accession #	Q96R11
Molecular Weight	Observed: 48 kDa Predicted: 56 kDa
NCBI Official Full Name	bile acid receptor isoform 1
NCBI Official Synonym Full Names	nuclear receptor subfamily 1 group H member 4
NCBI Official Symbol	NR1H4
NCBI Official Synonym Symbols	BAR; FXR; HRR1; HRR-1; PFIC5; RIP14
NCBI Protein Information	bile acid receptor
UniProt Protein Name	Bile acid receptor
UniProt Gene Name	NR1H4
UniProt Synonym Gene Names	BAR; FXR; HRR1; RIP14; RXR-interacting protein 14
UniProt Entry Name	NR1H4_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/nr1h4-antibody-western-blot-elisa/328613>