Recombinant Rat Nr1h4, His-tagged

Cat. No. Nr1h4-07R **Lot. No.** (See product label)

SPECIFICATION

Product Overview	The Recombinant Rat Nr1h4, His-tagged protein was expressed in E. coli and purified by affinity chromatography in combination with FPLC columns.
Species	Rat
Source	E.coli
Description	Farnesoid-X-receptor (FXR) was originally identified and cloned in rat as an orphan nuclear hormone receptor based on hybridization with a degenerate oligonucleotide designed from the highly conserved nuclear hormone receptor DNA binding domain. FXR functions as a heterodimer with RXR and binds to sequence elements in the promoters of target genes. The FXR/RXR heterodimer binds with highest affinity to inverted repeats separated by 1 bp (IR-1) and with low affinity to direct repeats separated by 4 and 5 bp (DR-4 and DR-5). As is the case for other nuclear hormone receptors, FXR regulates target gene activity in response to ligand. While initial studies suggested that farnesol and retinoid metabolites were likely ligands for FXR, current data support the notion that FXR is a bile acid sensor that plays an integral role in bile acid synthesis and transport.
Form	The protein is in 20mM Tris-HCl pH7.9,100mM NaCl, 0.2mM EDTA, 1mM DTT and 20% glycerol.
Molecular Mass	56.6 kDa.
AA Sequence	MVMQFQGLEN PIQISLQHSH RLSGFASDRM SSKPAKGVLT EHAAGPLGQN

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	LDLESYSPYN NVQFPQVQPQ ISSSSYYSNL GFYPQQPEDW YSPGLYELRR MPTESVYQGE TEVSEMPVTK KPRMAASSAG RIKGDELCVV CGDRASGYHY NALTCEGCKG FFRRSITKNA VYKCKNGGNC VMDMYMRRKC QDCRLRKCRE MGMLAECLLT EIQCKSKRLR KNVKQHADQT VNEDSEGRDL RQVTSTTKLC REKTELTVDQ QTLLDYIMDS YSKQRMPQEI TNKILKEEFS AEENFLILTE MATSHVQILV EFTKRLPGFQ TLDHEDQIAL LKGSAVEAMF LRSAEIFNKK LPAGHADLLE ERIRKSGISD EYITPMFSFY KSVGELKMTQ EEYALLTAIV ILSPDRQYIK DREAVEKLQE PLLDVLQKLC KIYQPENPQH FACLLGRLTE LRTFNHHHAE MLMSWRVNDH KFTPLLCEIW DVQ
Purity	Greater than 90% as determined by SDS-PAGE.
Storage	Stored at -70°C before use. Avoid repeated freeze thaw cycles.

GENE INFORMATION

Gene Name	Nr1h4 nuclear receptor subfamily 1, group H, member 4 [Rattus norvegicus]
Official Symbol	Nr1h4
Synonyms	NR1H4; nuclear receptor subfamily 1, group H, member 4; bile acid receptor; farnesol receptor HRR-1; RXR-interacting protein 14; farnesoid X activated receptor; farnesoid X-activated receptor; retinoid X receptor-interacting protein 14; Fxr; MGC94878;
Gene ID	60351
mRNA Refseq	NM_021745
Protein Refseq	NP_068513
UniProt ID	Q62735

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Chromosome Location	7q13
Pathway	Bile secretion, organism-specific biosystem;Gene Expression, organism-specific biosystem; Generic Transcription Pathway, organism-specific biosystem
Function	DNA binding; RNA polymerase II distal enhancer sequence-specific DNA binding; bile acid binding

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