

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 PIQISLQHSR 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 YSKQRMPEI TNKILKEEFS AEENFLILTE
 MATSHVQILV EFTKRLPGFQ TLDHEDQIAL LKGSAMEAMF LRSAEIFNKK
 LPAGHADLLE ERIKSGISD 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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