Recombinant FXR protein

Catalog No: 31120
Expressed In: *E. coli*

Quantity: 10 µg
Concentration: 0.2 µg/µl
Source: Human

Buffer Contents: 10 µg of Recombinant FXR protein in Dilution Buffer AM1 (20 mM Tris-Cl (pH 8), 20% glycerol, 100 mM NaCl, 1 mM DTT and 0.2 mM EDTA).

Background: The **farnesoid X receptor (FXR)** or **nuclear receptor subfamily 1, group H, member 4 (NR1H4)** is a nuclear receptor that, when activated, translocates to the nucleus where it interacts with certain proteins, including RXR and PPARGC1A, forming heterodimers that bind to hormone response elements on DNA and modulate gene expression. One of the primary functions of FXR is to suppress bile acid synthesis when levels are high by inhibiting the transcription of cholesterol 7 alpha-hydroxylase (CYP7A1) gene that expresses CYP7A1, the rate-limiting enzyme in bile acid synthesis from cholesterol.

Protein Details: Recombinant FXR is isolated from an *E. coli* strain that carries the coding sequence of the human FXR under the control of a T7 promoter (accession number U68233). The purified recombinant protein has an N-terminal His-Tag and is greater than 90% homogeneous and contains no detectable protease, DNase and RNase activity.

Application Notes: Recombinant FXR is suitable for DNA and protein-protein interaction assays. 20 ng is sufficient for gelshift assays and 100 ng is sufficient for protein-protein interaction studies. The molecular weight of the protein is ~55 kDa.

NOTE: The presence of Poly [d(I-C)] in buffers may affect protein functionality and should be avoided.

References:
This product was used in the following publications:
Renga, B., *et. al.* (2011). "Farnesoid X receptor suppresses consitutive androstane receptor activity at the multidrig resistance protein-4 promoter." *Biochim. Biophys. Acta.* 1809(3):157-65. PMID: 21296199.

Storage and Guarantee: Recombinant proteins in solution are temperature sensitive and must be stored at -80°C to prevent degradation. Avoid repeated freeze/thaw cycles and keep on ice when not in storage. This product is guaranteed for 6 months from date of receipt.

This product is for research use only and is not for use in diagnostic procedures.