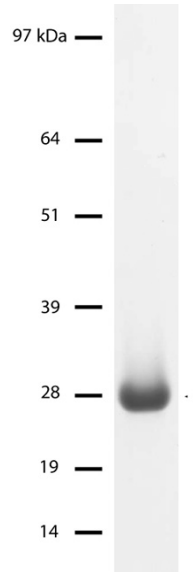
Recombinant RXR-LBD protein

Catalog No: 31365
Expressed In: *E. coli*

Quantity: 100 µg
Concentration: 5.49 µg/µl
Source: Human

Buffer Contents: 100 µg of recombinant RXR-LBD protein expressed in *E. coli* at a concentration of 5.49 mg/ml in 50 mM Tris pH 8.0, 150 mM NaCl, 1mM DTT and 50% glycerol.

Background: The **Retinoid X receptor (RXR) ligand binding domain (LBD)** is a promiscuous heterodimerization domain for binding of RXR to many nuclear receptors, including thyroid hormone receptors (TRs), retinoic acid receptors (RARs), peroxisome proliferator-activated receptor, orphan nuclear receptors and oxysterol receptors. Binding of **RXR-LBD** to nuclear receptors is mediated by the identity box, a 40-amino acid subregion within the ligand binding domain. The LBD is responsible for mediating transcription through receptor homo- and heterodimerization. The specific function of the RXR-containing complexes in regulating transcription depends on the associated ligand. For example, hormone binding to the LBD of the RXR results a conformational change that affects the C-terminal transactivation helix H12 involved in transcriptional activation. RXR-LBD ligand binding triggers dissociation of corepressor and the recruitment of coactivators, such as members of the Src family kinases, NCOA2/GRIP1, and RAC3/AIB1 which, in turn, promote transcription of downstream targets.



RXR-LBD protein gel.
RXR-LBD run on an SDS-PAGE gel and stained with Coomassie blue.

Protein Details: RXR-α is a nuclear receptor that forms heterodimers with retinoic acid receptors (RAR). The ligand binding domain (LBD) corresponding to amino acids 223 - 463 of RXR-α (accession number 1609194A) was expressed in *E. coli* with an apparent molecular weight of 27 kDa. An epitope tag present during expression was removed proteolytically after purification.

Application Notes: Recombinant RXR-LBD is suitable for *in vitro* transcription, ligand binding and protein-protein interaction assays. 20 ng is sufficient for in vitro transcription assays and 100 ng is sufficient for ligand binding and protein-protein interaction studies.

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.