

LXR- β -LBD (residues 211-461)

Liver-X-Receptor, beta isoform, Ligand Binding Domain

human, recombinant, *E. coli*

Cat. No.	Amount
PR-861	10 μ g

For *in vitro* use only
Quality guaranteed for 12 months
Store at -80°C

Avoid freeze / thaw cycles

Form

Liquid. Supplied in 20 mM Tris-HCl pH 8.0, 100 mM KCl, 0.2 mM EDTA, 1 mM DTT and 20% glycerol.

Activity

20 ng are sufficient for a gel-mobility shift assay and 100 ng are sufficient for a protein-protein interactions assay.

Application

LXR has been applied in DNA and protein-protein interactions assays.

Molecular Weight

27 kDa

Purity

> 95% by SDS-PAGE

Description

Liver X receptors (LXRs) are nuclear receptors that regulate the metabolism of cholesterol and bile acids. There are two subtypes of LXRs, LXR α and LXR β . LXR β is preferentially expressed in liver, small intestine, kidney and spleen. In contrast, LXR α expression is ubiquitous. The genomic structure and the promoter regions of the two LXR genes contain specific regulatory sites, which suggest that LXRs may have physiological roles in the immune system. Like other nuclear receptors, LXRs heterodimerize with retinoid X receptor (RXR) for function. LXRs are activated by naturally occurring oxysterols and regulate the expression of target genes, including ATP binding cassette transporter 1 (ABC1), ATP binding cassette transporter 8 (ABC8) and cholesterol ester transfer protein (CETP). LXR β expressed in livers of LXR α knockout mice does not compensate for the loss of LXR α . In addition, LXR β , but not LXR α , is also able to activate transcription of a reporter gene, which contains a specific direct repeat separated by 1 bp (DR1) element in the promoter, suggesting that LXR β may have different biological functions.

Selected References:

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- Willy *et al.* (1995) LXR, a nuclear receptor that defines a distinct retinoid response pathway. *Genes Dev.* **9**:1033.
- Apfel *et al.* (1994) A novel orphan receptor specific for a subset of thyroid hormone-responsive elements and its interaction with the retinoid/thyroid hormone receptor subfamily. *Mol. Cell. Biol.* **14**:7025.
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