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LXR-α (Liver-X Receptor, alpha isoform)

Catalog Reference	Vial Size		Lot Number	Molecular Mass	Accession
P1045-01	10,000 units (ng)	☐	091108QY	56 kDa	NM_005693
P1045-02	25,000 units (ng)	☐			

Storage conditions:
Store at -80 °C

Description:
Liver X receptors (LXRs) are nuclear receptors that regulate the metabolism of cholesterol and bile acids (1). There are two subtypes of LXRs, LXRα and LXRβ. LXRβ is preferentially expressed in liver, small intestine, kidney and spleen (2, 3). In contrast, LXRα expression is ubiquitous (4). 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 (5). Like other nuclear receptors, LXRs heterodimerize with retinoid X receptor (RXR) for function (1). LXRs are activated by naturally occurring oxysterols and regulate the expression of target genes (6-8), including ATP binding cassette transporter 1 (ABC1), ATP binding cassette transporter 8 (ABC8) and cholesterol ester transfer protein (CETP) (9-10). LXRα is thought to play a major role in the control of cholesterol catabolism by stimulating the expression of cholesterol 7 alpha-hydroxylase (CYP7A1), the rate limiting enzyme of bile acid synthesis (11).

Source:
Recombinant His tagged LXR is isolated from an E. coli strain that carries the coding sequence of the human LXRα under the control of a T7 promoter.

Applications:
LXRα has been applied in DNA and protein-protein interactions assays. **For Research Use Only.**

Quality Control:
Purified protein is greater than 95% homogeneous based on SDS-PAGE analysis.

Unit Definition:
1 unit equals 1 nanogram of purified protein. 20 units are sufficient for a gel-mobility shift assay and 100 units are sufficient for a protein-protein interaction assay.

Concentration:
0.2 mg/ml (in 1x dilution buffer A)

Reagents Supplied:
1x dilution buffer A: 20 mM Tris-Cl (pH 8.0), 20% Glycerol, 100 mM KCl, 1 mM DTT and 0.2 mM EDTA

References:
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3. Apfel et al., (1994) Mol. Cell. Biol. 14, 7025-7035
4. Song et al., (1994) Proc. Natl. Acad. Sci. 91, 10809-10813
5. Alberti et al., (2000) Gene 243, 93-103
6. Janowski et al., (1996) Nature 383, 728-731
7. Lehmann et al., (1997) J. Biol. Chem. 272, 3137-3140
8. Janowski et al., (1999) Proc. Natl. Acad. Sci. 96, 266-271
9. Luo et al., (2000) J. Clin. Invest. 105, 513-520
10. Venkateswaran et al., (2000) J. Biol. Chem. 275, 14700-14707
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