

Active Recombinant Human RXRA, Ligand Binding Domain, GST-tagged

Cat. No. RXRA-1152H **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Species	Human
Source	E.coli
ProteinLength	LBD
Description	Retinoid X Receptor (RXR) serves as a promiscuous heterodimerization partner for many nuclear receptors through the identity box, a 40-amino acid subregion within the ligand binding domain (LBD). RXR partners include Thyroid Hormone Receptors (TRs), Retinoic Acid Receptors (RARs), Peroxisome Proliferatoractivated Receptor, several constitutive active orphan nuclear receptors (e.g. Nuclear Growth Factor I-B), oxysterol receptors, and constitutive androstane receptors. RXRs also form homodimers to mediate the effects of 9-cis-retinoic acid (9-cRA). Depending on these protein-protein interactions, RXR-containing complexes have distinct ligand-dependent and constitutive functions. The LBD is functionally complex and mediates ligand binding, receptor homo- and heterodimerization, repression of transcription in the absence of ligand, and ligand-dependent activation of transcription. Hormone binding to the structurally conserved LBD of the RXR triggers a conformational change that principally affects the conserved C-terminal transactivation helix H12 involved in transcriptional activation. Coactivators directly recruited by liganded receptors include members of the steroid receptor coactivator/p160 family such as SRC-1, transcriptional intermediary factor 2/glucocorticoid receptor interacting protein

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

	1, and RAC3/activator of thyroid and retinoic acid receptors/amplified in breast cancer 1. Recombinant GST-RXR-LBD is isolated from an E.coli strain that carries the coding sequence of the human RXR-LBD under the control of a T7 promoter.
Form	Liquid. Supplied in 20mM Tris-HCl pH8.0, 100 mM KCl, 0.2mM EDTA, 1mM DTT and 20% glycerol.
Activity	100ng are sufficient for a protein-protein interaction assay.
Application	GST-RXR-LBD has been applied in DNA and proteinprotein interaction assays.
Purity	>95% by SDS-PAGE.
Usage	For in vitro use only.
Storage	Quality guaranteed for 12 months, store at -80°C. Avoid freeze / thaw cycles.

GENE INFORMATION

Gene Name	RXRA retinoid X receptor, alpha [Homo sapiens]
Synonyms	RXRA; FLJ00280; FLJ00318; FLJ16020; FLJ16733; MGC102720; NR2B1; OTTHUMP00000022510; Retinoid X receptor alpha; retinoid X receptor, alpha; Nuclear receptor subfamily 2 group B member 1; Retinoid X receptor, alpha; Retinoid X receptor alpha (RXR-alpha).
Gene ID	6256
mRNA Refseq	NM_002957
Protein Refseq	NP_002948

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MIM	180245
UniProt ID	P19793
Chromosome Location	9q34.3
Pathway	Adipocytokine signaling pathway; Non-small cell lung cancer; PPAR signaling pathway; Small cell lung cancer; Thyroid cancer.
Function	ligand-regulated transcription factor activity; metal ion binding; protein binding; retinoid-X receptor activity; sequence-specific DNA binding; steroid binding; steroid hormone receptor activity; transcription coactivator activity; transcription factor activity; vitamin D receptor binding; vitamin D response element binding; zinc ion binding.
PDB rendering based on 1by4.	