

Active Recombinant Human Retinoid X Receptor, Beta, His-tagged

Cat. No. RXRB-2514H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human His tagged RXR is expressed in <i>abaculovirus</i> system that carries the coding sequence of the human RXR- β under the control of a T7 promoter. 66 kDa.
Species	Human
Source	Insect Cells
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. RXR partners include thyroid hormone receptors (TRs), retinoic acid receptors (RARs), peroxisome proliferator-activated receptor (PPAR), several constitutive active orphan nuclear receptors, e.g. nuclear growth factor I-B (NGFI-B), oxysterol receptors (FXR,LXR), and constitutive androstane receptors (CAR). 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. RXR- β was originally identified as a protein able to bind to the regulatory region II of the murine major histocompatibility complex (MHC) class I promoter and referred to as H2RIIBP. The human RXR- β gene has been mapped to the short arm or centromeric region of chromosome 6 (6pter-q13) which also contains the MHC I locus. Two major RXR-b isoforms in the mouse, designated RXR- β 1 and RXR- β 2, differ in the N-terminal (A) domain with RXR- β 1 containing an extra 72 amino acids. These isoform mRNAs are

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transcribed from two CpG island promoters and the different N-terminal exons are spliced to exons common to both isoforms from the remainder of the gene. Although the two mouse RXR isoforms have been characterised in some detail, less information is available about their human counterparts.

Applications	RXR β can be applied to in vitro transcription assays, DNA and protein-protein interactions assays.
Activity	1 unit equals 1 nanogram purified protein. 20 units (ng) are sufficient for an in vitro transcription assay and 100 units are sufficient for a protein-protein interaction assay.
Quality Control	The purified protein is greater than 95% homogeneous based on SDS-PAGE gel analysis.
Reagents Supplied	1x dilution buffer A: 20 mM Tris-Cl (pH 8.0), 20% Glycerol, 100 mM KCl, 0.2 mM EDTA and 1mM DTT.
Storage Conditions	Store at -80°C.
Pathways	Adipocytokine signaling pathway; Non-small cell lung cancer; PPAR signaling pathway; Pathways in cancer; Small cell lung cancer; Thyroid cancer

GENE INFORMATION

Gene Name	RXRB retinoid X receptor, beta [Homo sapiens]
Synonyms	RXRB; retinoid X receptor, beta; NR2B2; DAUDI6; RCoR-1; MGC1831; H-2RIIBP; MHC class I promoter binding protein; Retinoid X receptor beta; Nuclear receptor subfamily 2 group B member 2
Gene ID	6257

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mRNA Refseq	NM_021976
Protein Refseq	NP_068811
MIM	180246
UniProt ID	P28702
Chromosome Location	6p21.3
Function	ligand-regulated transcription factor activity; metal ion binding; retinoid-X receptor activity; sequence-specific DNA binding; steroid binding; steroid hormone receptor activity; transcription coactivator activity; transcription factor activity; zinc ion binding
PDB rendering based on 1by4.	