

Active Recombinant Full Length Human RARB Protein, His-tagged

Cat. No. RARB-2511H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human His-tagged RAR- β was expressed in <i>abaculovirus</i> system and purified by affinity and FPLC chromatography. 55 kDa.
Species	Human
Source	Insect Cells
Protein Length	1-455 a.a.
Description	Retinoic acid receptors are important in the regulation of growth and differentiation of epithelial tissues, embryonic and central nervous system development and hematopoiesis. Retinoids mediate their effect by two classes of nuclear receptor proteins, the retinoic acid receptors (RARs) and the retinoid X receptors (RXRs), that each consist of three isotypes (α, β, and γ) encoded in separate genes. Upon dimerization with RXR, RARs can bind to specific enhancer sequences in the DNA, so-called retinoic acid response elements (RAREs), resulting in transcriptional activation of target genes in the presence of ligand. Retinoids, the natural and synthetic vitamin A derivatives, are known to inhibit the proliferation of lung cancer cells, breast cancer cells, the growth of carcinogen-induced bronchogenic squamous cell carcinoma and mammary tumors. They have previously been used as chemoprevention agents against both types of cancer. A growing body of evidence supports the hypotheses that the RAR- β gene is a tumor suppressor gene and the chemopreventive effects of retinoids are due to induction of RAR-β. RAR-β

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	expression is reduced in many malignant tumors including breast carcinoma.
Applications	RAR- β has been applied to in vitro transcription assays, DNA and protein-protein interaction assays.
Transcript Variant	This variant encodes the full length isoform.
Activity	1 unit is equal to 1 nanogram of purified protein. 20-100 units are sufficient for an in vitro transcription assay and 100 units are sufficient for a protein-protein interactions 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	Non-small cell lung cancer; Pathways in cancer; Small cell lung cancer
GENE INFORMATION	
Gene Name	RARB retinoic acid receptor, beta [Homo sapiens]
Synonyms	retinoic acid receptor, beta; HAP; RRB2; NR1B2; RARB; RAR-epsilon; RAR-beta; OTTHUMP00000161046; HBV-activated protein; retinoic acid receptor beta 2; retinoic acid receptor beta 4; retinoic acid receptor beta 5; hepatitis B virus activated protein; retinoic acid receptor, beta polypeptide; RAR-epsilon; HBV-activated protein; Nuclear receptor subfamily 1 group B member 2

Gene ID	5915
mRNA Refseq	NM_000965
Protein Refseq	NP_000956
MIM	180220
UniProt ID	P10826
Chromosome Location	3p24
Function	metal ion binding; retinoic acid receptor activity; sequence-specific DNA binding; steroid hormone receptor activity; transcription activator activity; transcription factor activity; zinc ion binding
PDB rendering based on 1dsz.	