10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

RARB Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP18153C

Product Information

Application	WB, IF, E
Primary Accession	P10826
Other Accession	P22605, P22448, NP_000956.2
Reactivity	Human, Mouse
Predicted	Mouse, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB24881
Calculated MW	50489
Antigen Region	168-195

Additional Information

Gene ID	5915
Other Names	Retinoic acid receptor beta, RAR-beta, HBV-activated protein, Nuclear receptor subfamily 1 group B member 2, RAR-epsilon, RARB, HAP, NR1B2
Target/Specificity	This RARB antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 168-195 amino acids from the Central region of human RARB.
Dilution	WB~~1:1000 IF~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	RARB Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	RARB
Synonyms	HAP, NR1B2

Function	Receptor for retinoic acid. Retinoic acid receptors bind as heterodimers to their target response elements in response to their ligands, all-trans or 9-cis retinoic acid, and regulate gene expression in various biological processes. The RXR/RAR heterodimers bind to the retinoic acid response elements (RARE) composed of tandem 5'-AGGTCA-3' sites known as DR1-DR5. In the absence or presence of hormone ligand, acts mainly as an activator of gene expression due to weak binding to corepressors (PubMed:12554770). The RXRA/RARB heterodimer can act as a repressor on the DR1 element and as an activator on the DR5 element (PubMed:29021580). In concert with RARG, required for skeletal growth, matrix homeostasis and growth plate function (By similarity).
Cellular Location	Nucleus. Cytoplasm [Isoform Beta-2]: Nucleus.
Tissue Location	Expressed in aortic endothelial cells (at protein level).

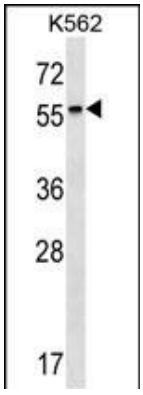
Background

This gene encodes retinoic acid receptor beta, a member of the thyroid-steroid hormone receptor superfamily of nuclear transcriptional regulators. This receptor localizes to the cytoplasm and to subnuclear compartments. It binds retinoic acid, the biologically active form of vitamin A which mediates cellular signalling in embryonic morphogenesis, cell growth and differentiation. It is thought that this protein limits growth of many cell types by regulating gene expression. The gene was first identified in a hepatocellular carcinoma where it flanks a hepatitis B virus integration site. The gene expresses at least two transcript variants; one additional transcript has been described, but its full length nature has not been determined. [provided by RefSeq].

References

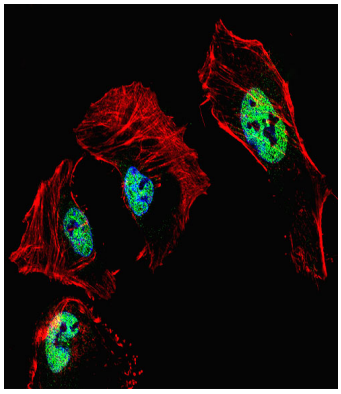
Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010)
Miladi-Abdennadher, I., et al. Tumour Biol. 31(5):503-511(2010)
Ruano, G., et al. Pharmacogenomics 11(7):959-971(2010)
Jugessur, A., et al. PLoS ONE 5 (7), E11493 (2010) :
Ding, Y., et al. Mol. Vis. 16, 855-861 (2010) :

Images



RARB Antibody (Center) (Cat. #AP18153c) western blot analysis in K562 cell line lysates (35ug/lane).This demonstrates the RARB antibody detected the RARB protein (arrow).

Fluorescent confocal image of Hela cell stained with RARB Antibody (Center)(Cat#AP18153c). Hela cells were fixed with 4% PFA (20 min), permeabilized with Triton X-100 (0.1%, 10 min), then incubated with RARB primary antibody (1:25, 1 h at 37°C). For secondary antibody, Alexa Fluor® 488 conjugated donkey anti-rabbit antibody (green) was used (1:400, 50 min at 37°C).Cytoplasmic



actin was counterstained with Alexa Fluor® 555 (red) conjugated Phalloidin (7units/ml, 1 h at 37°C). Nuclei were counterstained with DAPI (blue) (10 µg/ml, 10 min). RARB immunoreactivity is localized to nucleus significantly.