

Anti-Retinoid X Receptor alpha Rabbit Monoclonal Antibody

Catalog # ABO15447

Product Information

Application	WB, IF, ICC, IP
Primary Accession	P19793
Host	Rabbit
Isotype	IgG
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Format	Liquid
Description	Anti-Retinoid X Receptor alpha Rabbit Monoclonal Antibody . Tested in WB, ICC/IF, IP applications. This antibody reacts with Human, Mouse, Rat.

Additional Information

Gene ID	6256
Other Names	Retinoic acid receptor RXR-alpha, Nuclear receptor subfamily 2 group B member 1, Retinoid X receptor alpha, RXRA, NR2B1
Calculated MW	50811
Application Details	WB 1:500-1:2000 ICC/IF 1:50-1:200 IP 1:50
Source	Eukaryota
Contents	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
Clone Names Immunogen	Clone: 20R23 A synthesized peptide derived from human Retinoid X Receptor alpha
Purification	Affinity-chromatography
Storage	Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.

Protein Information

Name	RXRA
Synonyms	NR2B1

Function

Receptor for retinoic acid that acts as a transcription factor (PubMed:[10874028](#), PubMed:[11162439](#), PubMed:[11915042](#), PubMed:[37478846](#)). Forms homo- or heterodimers with retinoic acid receptors (RARs) and binds to target response elements in response to their ligands, all-trans or 9-cis retinoic acid, to regulate gene expression in various biological processes (PubMed:[10195690](#), PubMed:[11162439](#), PubMed:[11915042](#), PubMed:[16107141](#), PubMed:[17761950](#), PubMed:[18800767](#), PubMed:[19167885](#), PubMed:[28167758](#), PubMed:[37478846](#)). The RAR/RXR heterodimers bind to the retinoic acid response elements (RARE) composed of tandem 5'-AGGTCA-3' sites known as DR1-DR5 to regulate transcription (PubMed:[10195690](#), PubMed:[11162439](#), PubMed:[11915042](#), PubMed:[17761950](#), PubMed:[28167758](#)). The high affinity ligand for retinoid X receptors (RXRs) is 9-cis retinoic acid (PubMed:[1310260](#)). In the absence of ligand, the RXR-RAR heterodimers associate with a multiprotein complex containing transcription corepressors that induce histone deacetylation, chromatin condensation and transcriptional suppression (PubMed:[20215566](#)). On ligand binding, the corepressors dissociate from the receptors and coactivators are recruited leading to transcriptional activation (PubMed:[20215566](#), PubMed:[37478846](#), PubMed:[9267036](#)). Serves as a common heterodimeric partner for a number of nuclear receptors, such as RARA, RARB and PPARA (PubMed:[10195690](#), PubMed:[11915042](#), PubMed:[28167758](#), PubMed:[29021580](#)). The RXRA/RARB heterodimer can act as a transcriptional repressor or transcriptional activator, depending on the RARE DNA element context (PubMed:[29021580](#)). The RXRA/PPARA heterodimer is required for PPARA transcriptional activity on fatty acid oxidation genes such as ACOX1 and the P450 system genes (PubMed:[10195690](#)). Together with RARA, positively regulates microRNA-10a expression, thereby inhibiting the GATA6/VCAM1 signaling response to pulsatile shear stress in vascular endothelial cells (PubMed:[28167758](#)). Acts as an enhancer of RARA binding to RARE DNA element (PubMed:[28167758](#)). May facilitate the nuclear import of heterodimerization partners such as VDR and NR4A1 (PubMed:[12145331](#), PubMed:[15509776](#)). Promotes myelin debris phagocytosis and remyelination by macrophages (PubMed:[26463675](#)). Plays a role in the attenuation of the innate immune system in response to viral infections, possibly by negatively regulating the transcription of antiviral genes such as type I IFN genes (PubMed:[25417649](#)). Involved in the regulation of calcium signaling by repressing ITPR2 gene expression, thereby controlling cellular senescence (PubMed:[30216632](#)).

Cellular Location

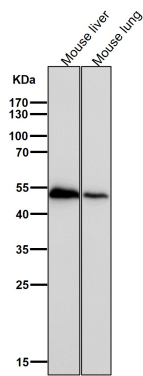
Nucleus {ECO:0000255|PROSITE-ProRule:PRU00407, ECO:0000269|PubMed:[10874028](#), ECO:0000269|PubMed:[11915042](#), ECO:0000269|PubMed:[12145331](#), ECO:0000269|PubMed:[15509776](#), ECO:0000269|PubMed:[17761950](#), ECO:0000269|PubMed:[28167758](#)}. Cytoplasm Mitochondrion. Note=Localization to the nucleus is enhanced by vitamin D3 (PubMed:[15509776](#)). Nuclear localization may be enhanced by the interaction with heterodimerization partner VDR (PubMed:[12145331](#)). Translocation to the mitochondrion upon interaction with NR4A1 (PubMed:[15509776](#), PubMed:[17761950](#)). Increased nuclear localization upon pulsatile shear stress (PubMed:[28167758](#))

Tissue Location

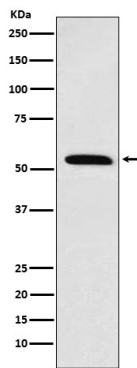
Expressed in lung fibroblasts (at protein level) (PubMed:[30216632](#)). Expressed in monocytes (PubMed:[26463675](#)). Highly expressed in liver, also found in kidney and brain (PubMed:[14702039](#), PubMed:[2159111](#), PubMed:[24275569](#)).

Images

All lanes use the Antibody at 1:3K dilution for 1 hour at room temperature.



Western blot analysis of Retinoid X Receptor alpha expression in K562 cell lysate.



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