

RARA Antibody (C-term) Blocking peptide
Synthetic peptide
Catalog # BP13849b**Specification**

RARA Antibody (C-term) Blocking peptide - Product InformationPrimary Accession [P10276](#)**RARA Antibody (C-term) Blocking peptide - Additional Information****Gene ID** 5914**Other Names**

Retinoic acid receptor alpha, RAR-alpha, Nuclear receptor subfamily 1 group B member 1, RARA, NR1B1

Target/Specificity

The synthetic peptide sequence used to generate the antibody AP13849b was selected from the C-term region of RARA. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

RARA Antibody (C-term) Blocking peptide - Protein Information**Name** RARA**Synonyms** NR1B1**Function**

Receptor for retinoic acid (PubMed:19850744, PubMed:16417524, PubMed:20215566). 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 (PubMed:28167758). The RXR/RAR heterodimers bind to the retinoic acid response elements (RARE) composed of tandem 5'-AGGTCA-3' sites known as DR1-DR5 (PubMed:28167758, PubMed:<a

<http://www.uniprot.org/citations/19398580> target="_blank">19398580). 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:16417524). On ligand binding, the corepressors dissociate from the receptors and associate with the coactivators leading to transcriptional activation (PubMed:9267036, PubMed:19850744, PubMed:20215566). Formation of a complex with histone deacetylases might lead to inhibition of RARE DNA element binding and to transcriptional repression (PubMed:28167758). Transcriptional activation and RARE DNA element binding might be supported by the transcription factor KLF2 (PubMed:28167758). RARA plays an essential role in the regulation of retinoic acid-induced germ cell development during spermatogenesis (By similarity). Has a role in the survival of early spermatocytes at the beginning prophase of meiosis (By similarity). In Sertoli cells, may promote the survival and development of early meiotic prophase spermatocytes (By similarity). In concert with RARG, required for skeletal growth, matrix homeostasis and growth plate function (By similarity). Together with RXRA, positively regulates microRNA-10a expression, thereby inhibiting the GATA6/VCAM1 signaling response to pulsatile shear stress in vascular endothelial cells (PubMed:28167758). In association with HDAC3, HDAC5 and HDAC7 corepressors, plays a role in the repression of microRNA-10a and thereby promotes the inflammatory response (PubMed:28167758).

Cellular Location

Nucleus. Cytoplasm. Note=Nuclear localization depends on ligand binding, phosphorylation and sumoylation (PubMed:19850744) Translocation to the nucleus in the absence of ligand is dependent on activation of PKC and the downstream MAPK phosphorylation (By similarity). Increased nuclear localization upon pulsatile shear stress (PubMed:28167758).
{ECO:0000250|UniProtKB:P11416, ECO:0000269|PubMed:19850744, ECO:0000269|PubMed:28167758}

Tissue Location

Expressed in monocytes.

RARA Antibody (C-term) Blocking peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

RARA Antibody (C-term) Blocking peptide - Images

RARA Antibody (C-term) Blocking peptide - Background

This gene represents a nuclear retinoic acid receptor. The encoded protein, retinoic acid receptor alpha, regulates transcription in a ligand-dependent manner. This gene has been implicated in regulation of development, differentiation, apoptosis, granulopoiesis, and transcription of clock genes. Translocations between this locus and several other loci have been associated with acute promyelocytic leukemia. Alternatively spliced transcript variants have been found for this locus.

RARA Antibody (C-term) Blocking peptide - References

Park, U.H., et al. J. Biol. Chem. 285(44):34269-34278(2010) Asleson, A.D., et al. Cancer Genet.

Cytogenet. 202(1):33-37(2010)Catalano, A., et al. Blood 110(12):4073-4076(2007)Wells, R.A., et al.
Nat. Genet. 17(1):109-113(1997)Chen, Z., et al. Proc. Natl. Acad. Sci. U.S.A. 91(3):1178-1182(1994)