

RORC Antibody (Center) Blocking peptide
Synthetic peptide
Catalog # BP13786c**Specification**

RORC Antibody (Center) Blocking peptide - Product InformationPrimary Accession [P51449](#)**RORC Antibody (Center) Blocking peptide - Additional Information****Gene ID** 6097**Other Names**

Nuclear receptor ROR-gamma, Nuclear receptor RZR-gamma, Nuclear receptor subfamily 1 group F member 3, RAR-related orphan receptor C, Retinoid-related orphan receptor-gamma, RORC, NR1F3, RORG, RZRG

Target/Specificity

The synthetic peptide sequence used to generate the antibody AP13786c was selected from the Center region of RORC. 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.

RORC Antibody (Center) Blocking peptide - Protein Information**Name** RORC**Synonyms** NR1F3, RORG, RZRG**Function**

Nuclear receptor that binds DNA as a monomer to ROR response elements (RORE) containing a single core motif half-site 5'-AGGTCA-3' preceded by a short A-T-rich sequence. Key regulator of cellular differentiation, immunity, peripheral circadian rhythm as well as lipid, steroid, xenobiotics and glucose metabolism (PubMed: [19381306](http://www.uniprot.org/citations/19381306), PubMed: [19965867](http://www.uniprot.org/citations/19965867), PubMed: [22789990](http://www.uniprot.org/citations/22789990), PubMed: [26160376](http://www.uniprot.org/citations/26160376), PubMed: [20203100](http://www.uniprot.org/citations/20203100)). Considered to have intrinsic transcriptional activity, have some

natural ligands like oxysterols that act as agonists (25-hydroxycholesterol) or inverse agonists (7-oxygenated sterols), enhancing or repressing the transcriptional activity, respectively (PubMed: [19965867](http://www.uniprot.org/citations/19965867)), PubMed: [22789990](http://www.uniprot.org/citations/22789990)). Recruits distinct combinations of cofactors to target gene regulatory regions to modulate their transcriptional expression, depending on the tissue, time and promoter contexts. Regulates the circadian expression of clock genes such as CRY1, BMAL1 and NR1D1 in peripheral tissues and in a tissue-selective manner. Competes with NR1D1 for binding to their shared DNA response element on some clock genes such as BMAL1, CRY1 and NR1D1 itself, resulting in NR1D1-mediated repression or RORC-mediated activation of the expression, leading to the circadian pattern of clock genes expression. Therefore influences the period length and stability of the clock. Involved in the regulation of the rhythmic expression of genes involved in glucose and lipid metabolism, including PLIN2 and AVPR1A (PubMed: [19965867](http://www.uniprot.org/citations/19965867)). Negative regulator of adipocyte differentiation through the regulation of early phase genes expression, such as MMP3. Controls adipogenesis as well as adipocyte size and modulates insulin sensitivity in obesity. In liver, has specific and redundant functions with RORA as positive or negative modulator of expression of genes encoding phase I and Phase II proteins involved in the metabolism of lipids, steroids and xenobiotics, such as SULT1E1. Also plays a role in the regulation of hepatocyte glucose metabolism through the regulation of G6PC1 and PCK1 (PubMed: [19965867](http://www.uniprot.org/citations/19965867)). Regulates the rhythmic expression of PROX1 and promotes its nuclear localization (PubMed: [19381306](http://www.uniprot.org/citations/19381306), PubMed: [19965867](http://www.uniprot.org/citations/19965867), PubMed: [22789990](http://www.uniprot.org/citations/22789990), PubMed: [26160376](http://www.uniprot.org/citations/26160376), PubMed: [20203100](http://www.uniprot.org/citations/20203100)). Plays an indispensable role in the induction of IFN-gamma dependent anti-mycobacterial systemic immunity (PubMed: [26160376](http://www.uniprot.org/citations/26160376)).

Cellular Location

Nucleus.

Tissue Location

Isoform 1 is widely expressed in many tissues, including liver and adipose, and highly expressed in skeletal muscle Isoform 2 is primarily expressed in immature thymocytes

RORC Antibody (Center) Blocking peptide - Protocols

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

- [Blocking Peptides](#)

RORC Antibody (Center) Blocking peptide - Images

RORC Antibody (Center) Blocking peptide - Background

The protein encoded by this gene is a DNA-binding transcription factor and is a member of the NR1 subfamily of nuclear hormone receptors. The specific functions of this protein are not known; however, studies of a similar gene in mice have shown that this gene may be essential for lymphoid organogenesis and may play an important regulatory role in thymopoiesis. In addition, studies in mice suggest that the protein encoded by this gene may inhibit the expression of Fas ligand and IL2. Two transcript variants encoding different isoforms have been found for this gene.

RORC Antibody (Center) Blocking peptide - References

Wang, Y., et al. Biochim. Biophys. Acta 1801(8):917-923(2010)Rose, J.E., et al. Mol. Med. 16 (7-8), 247-253 (2010) :Burgler, S., et al. J. Immunol. 184(11):6161-6169(2010)Jin, L., et al. Mol. Endocrinol. 24(5):923-929(2010)Wang, W.J., et al. J. Reprod. Immunol. 84(2):164-170(2010)