ARG57441
anti-ROR gamma antibody

Package: 50 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes ROR gamma
Tested Reactivity	Hu, Ms, Rat
Tested Application	WB
Specificity	This antibody detects endogenous levels of ROR gamma protein.
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	ROR gamma
Species	Human
Immunogen	Synthetic peptide around aa. 114-159 of Human ROR gamma.
Conjugation	Un-conjugated
Alternate Names	RZRG; NR1F3; TOR; RAR-related orphan receptor C; Nuclear receptor subfamily 1 group F member 3; RORG; Retinoid-related orphan receptor-gamma; Nuclear receptor ROR-gamma; Nuclear receptor RZR-gamma; RZR-GAMMA

Application Instructions

Application table

Application	Dilution
WB	1:500 - 1:1000

Application Note: * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

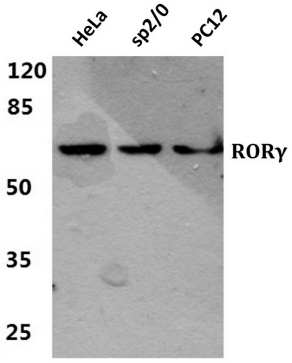
Properties

Form	Liquid
Purification	Affinity purification with immunogen.
Purity	> 95% (by SDS-PAGE).
Buffer	PBS (pH 7.2) and 0.05% Sodium azide.
Preservative	0.05% Sodium azide
Concentration	1 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	RORC
Gene Full Name	RAR-related orphan receptor C
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. [provided by RefSeq, Jul 2008]
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. 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. 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, ARNTL/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 ARNTL/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. 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 also a role in the regulation of hepatocyte glucose metabolism through the regulation of G6PC and PCK1. Regulates the rhythmic expression of PROX1 and promotes its nuclear localization (By similarity). Isoform 2: Essential for thymopoiesis and the development of several secondary lymphoid tissues, including lymph nodes and Peyer's patches. Required for the generation of LTi (lymphoid tissue inducer) cells. Regulates thymocyte survival through DNA-binding on ROREs of target gene promoter regions and recruitment of coactivaros via the AF-2. Also plays a key role, downstream of IL6 and TGFB and synergistically with RORA, for lineage specification of uncommitted CD4(+) T-helper (T(H)) cells into T(H)17 cells, antagonizing the T(H)1 program. Probably regulates IL17 and IL17F expression on T(H) by binding to the essential enhancer conserved non-coding sequence 2 (CNS2) in the IL17-IL17F locus. May also play a role in the pre-TCR activation cascade leading to the maturation of alpha/beta T-cells and may participate in the regulation of DNA accessibility in the TCR-J(alpha) locus. [UniProt]
Calculated Mw	58 kDa

Images



ARG57441 anti-ROR gamma antibody WB image

Western blot: HeLa, sp2/0 and PC12 cell lysates stained with ARG57441 anti-ROR gamma antibody.