


Product datasheet

PE Anti-ROR gamma antibody [4G419] ab104950

★★★★☆ [1 Abreviews](#) [1 References](#) [1 Image](#)

Overview

Product name	PE Anti-ROR gamma antibody [4G419]
Description	PE Mouse monoclonal [4G419] to ROR gamma
Host species	Mouse
Conjugation	PE. Ex: 488nm, Em: 575nm
Specificity	ab104950 will detect ROR gamma and may detect ROR gamma t, but can not be used to distinguish between the two proteins.
Tested applications	Suitable for: Flow Cyt (Intra)
Species reactivity	Reacts with: Human Predicted to work with: Mouse, Rat, Cow, Dog, Non human primates 
Immunogen	A region within amino acids 1-50 of Human ROR gamma.
Positive control	Flow Cyt (Intra): Human lymphocytes
General notes	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C.
Storage buffer	Preservative: 0.05% Sodium azide Constituents: PBS, 0.05% BSA
Purification notes	Affinity Chromatography
Clonality	Monoclonal
Clone number	4G419
Isotype	IgG1

Light chain type

kappa

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab104950 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt (Intra)		Use 10µl for 10 ⁶ cells. (0.25µg) ab91357 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

Target

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, PubMed:19965867, PubMed:22789990, PubMed:26160376, PubMed: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, PubMed: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, 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 (PubMed: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 also a role in the regulation of hepatocyte glucose metabolism through the regulation of G6PC and PCK1 (PubMed:19965867). Regulates the rhythmic expression of PROX1 and promotes its nuclear localization (PubMed:19381306, PubMed:19965867, PubMed:22789990, PubMed:26160376, PubMed:20203100). Plays an indispensable role in the induction of IFN-gamma dependent anti-mycobacterial systemic immunity (PubMed:26160376). 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 LT_i (lymphoid tissue inducer) cells. Regulates thymocyte survival through DNA-binding on ROREs of target gene promoter regions and recruitment of coactivators 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.

Tissue specificity

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.

Involvement in disease

Immunodeficiency 42

Sequence similarities

Belongs to the nuclear hormone receptor family. NR1 subfamily.
Contains 1 nuclear receptor DNA-binding domain.

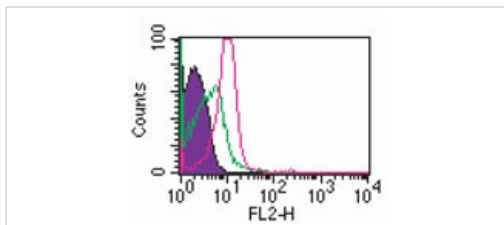
Domain

The AF-2 (activation function-2) motif is required for recruiting coregulators containing LXXLL motifs such as NCOA1 and NCOA2.

Cellular localization

Nucleus.

Images



ab104950 at 10 µl per 1x10⁶ cells (0.25 µg) staining ROR gamma in Human lymphocytes by Intracellular flow cytometric analysis. Shaded histogram represents cells without antibody; green represents isotype control; red represents ab104950.

Flow Cytometry (Intracellular) - PE Anti-ROR gamma antibody [4G419] (ab104950)

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