

Alexa Fluor® 594 Anti-ROR gamma antibody [EPR20006] ab283626

Recombinant RabMAb

2 Images

Overview

Product name	Alexa Fluor® 594 Anti-ROR gamma antibody [EPR20006]
Description	Alexa Fluor® 594 Rabbit monoclonal [EPR20006] to ROR gamma
Host species	Rabbit
Conjugation	Alexa Fluor® 594. Ex: 590nm, Em: 617nm
Specificity	Our data suggests that this antibody is specific to ROR gamma isoform 2 which is known as ROR gammaT.
Tested applications	Suitable for: Flow Cyt (Intra)
Species reactivity	Reacts with: Mouse
Immunogen	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
Positive control	Flow cyt: C57 BL/6 mouse thymocytes.
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none">- High batch-to-batch consistency and reproducibility- Improved sensitivity and specificity- Long-term security of supply- Animal-free production <p>For more information see here.</p> <p>Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.</p> <p>Alexa Fluor® is a registered trademark of Molecular Probes, Inc, a Thermo Fisher Scientific Company. The Alexa Fluor® dye included in this product is provided under an intellectual property license from Life Technologies Corporation. As this product contains the Alexa Fluor® dye, the purchase of this product conveys to the buyer the non-transferable right to use the purchased product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). As this product contains the Alexa Fluor® dye the sale of this product is expressly conditioned on the buyer not using the product or its components, or any materials made using the product or its components, in any activity to generate revenue, which may include, but is not limited to use of the product or its components: (i) in manufacturing; (ii) to provide a service, information, or data in return for payment (iii) for therapeutic, diagnostic or prophylactic purposes; or (iv) for resale, regardless of whether they are sold for use in research. For information on purchasing a license to this product for purposes other than research, contact</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle. Store In the Dark.
Storage buffer	pH: 7.4 Preservative: 0.01% Sodium azide Constituents: 30% Glycerol (glycerin, glycerine), 1% BSA, 68.99% PBS
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR20006
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab283626 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)		1/500.

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 α 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.

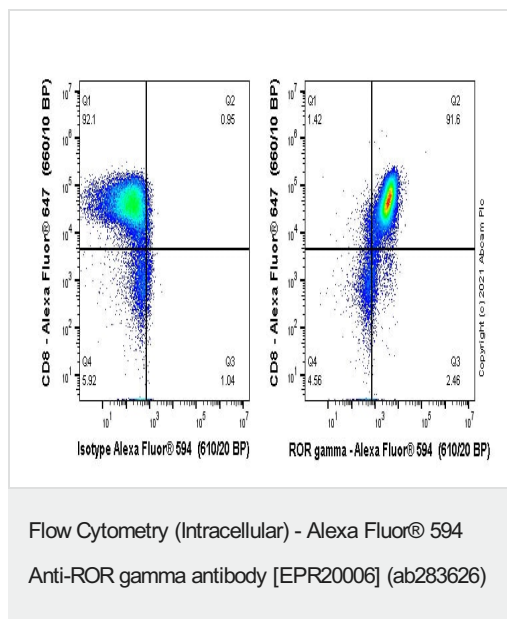
Domain

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

Cellular localization

Nucleus.

Images



Flow cytometry staining of C57 BL/6 mouse thymocytes with ab283626 (right) or Rabbit IgG (monoclonal) Alexa Fluor® 594 (**ab208568**) isotype (left). Cells were fixed and permeabilised with BD Cytofix/Cytoperm™ for 20 min. Cells were incubated for 30 min on ice in 1x PBS containing 10 µg/ml anti CD16/CD32 and 10% normal goat serum to block FC receptors and non-specific protein-protein interaction. Thymocytes were incubated with the antibody (ab283626) or Rabbit IgG (monoclonal) Alexa Fluor® 594 (**ab208568**) isotype control (1×10^6 in 100 µl at 1 µg/ml (1/500)) for 30 min on ice. The cells were simultaneously stained with CD4 and CD8. Acquisition of >30000 events were collected using a 50 mW Yellow/Green laser (561nm) and 610/20 bandpass filter. Events were gated on CD4+ thymocytes.

Why choose a recombinant antibody?



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

Alexa Fluor® 594 Anti-ROR gamma antibody
[EPR20006] (ab283626)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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