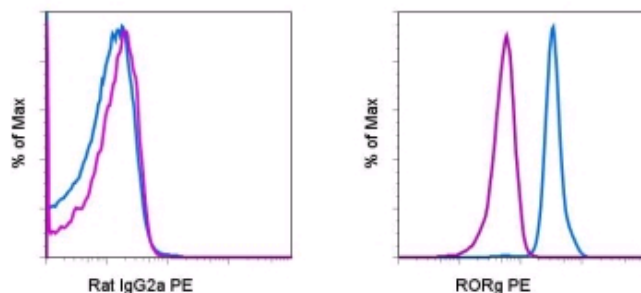


## Anti-Human/Mouse ROR gamma (t) PE

**Catalog Number:** 12-6988

**Also Known As:** RORgamma, RORg, RORg(t), Retinoid-Related Orphan Receptor gamma

**RUO:** For Research Use Only



Surface staining of mouse thymocytes with Anti-Mouse CD4 FITC (cat. 11-0041) and Anti-Mouse CD8a APC (cat. 17-0081), followed by intracellular staining with 0.25 µg of Rat IgG2a Isotype Control PE (cat. 12-4321) (left) or 0.25 µg of Anti-Human/Mouse RORγ(t) PE (right) using the Foxp3 Staining Buffer Set (cat. 00-5523). The histograms demonstrate staining of CD4<sup>+</sup>CD8<sup>+</sup> double-positive cells (blue histogram) or CD4<sup>+</sup>CD8<sup>-</sup> single-positive cells (purple histogram).

**Additional data demonstrating staining of RORγ(t) with the AFKJS-9 monoclonal antibody in mouse and human Th17-polarized T cells, may be viewed on the Th17 cells webpage.**

### Product Information

**Contents:** Anti-Human/Mouse ROR gamma (t) PE


**REF** **Catalog Number:** 12-6988

**Clone:** AFKJS-9

**Concentration:** 0.2 mg/ml


**Host/Isotype:** Rat IgG2a

**Formulation:** aqueous buffer, 0.09% sodium azide, may contain carrier protein/stabilizer

 **Temperature Limitation:** Store at 2-8°C. Do not freeze. Light sensitive material.

 **Batch Code:** Refer to Vial

 **Use By:** Refer to Vial

 **Caution, contains Azide**

### Description

The AFKJS-9 monoclonal antibody reacts with the mouse RORγ(t) protein. RORγ is a member of the retinoic acid-related orphan receptor (ROR) family, which also includes RORα and RORβ. ROR family proteins are ligand-dependent transcription factors that play roles in multiple physiological processes. RORγ is expressed in several tissues including liver, lung, muscle, heart and kidney. Furthermore, it was discovered that alternative transcription results in the expression of an isoform, RORγt, which is expressed exclusively in cells of the lymphoid compartment, namely CD4<sup>+</sup>CD8<sup>+</sup> "double-positive" thymocytes, Th17 cells of the periphery and lymphoid tissue inducer (Lti) cells of lymphoid organs.

The RORγt isoform differs from RORγ by three unique amino acids at its amino terminus. Therefore, the AFKJS-9 antibody will react with both the RORγ and RORγt isoforms.

### Applications Reported

This AFKJS-9 antibody has been reported for use in intracellular staining followed by flow cytometric analysis.

### Applications Tested

This AFKJS-9 antibody has been tested by intracellular staining followed by flow cytometric analysis of mouse thymocytes and Th17-polarized splenocytes. This can be used at less than or equal to 0.5 µg per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10<sup>5</sup> to 10<sup>8</sup> cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

**Use of the Foxp3 Staining Buffer Set (cat. 00-5523) and protocol is recommended when using this product for intracellular staining followed by flow cytometry. Please click here for Staining Protocol (refer to Protocol B: One step protocol for intracellular (nuclear) proteins)**

### References

Li L, Kim J, Boussiotis VA. IL-1β-mediated signals preferentially drive conversion of regulatory T cells but not conventional T cells into IL-17-producing cells. *J Immunol.* 2010 Oct 1;185(7):4148-53 (**AFKJS-9**, IC flow, PubMed)

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Sun Z, Unutmaz D, Zou YR, Sunshine MJ, Pierani A, Brenner-Morton S, Mebius RE, Littman DR. Requirement for RORgamma in thymocyte survival and lymphoid organ development. Science. 2000 Jun 30;288(5475):2369-73.

He YW, Deftos ML, Ojala EW, Bevan MJ. RORgamma t, a novel isoform of an orphan receptor, negatively regulates Fas ligand expression and IL-2 production in T cells. Immunity. 1998 Dec;9(6):797-806.

Medvedev A, Yan ZH, Hirose T, Giguère V, Jetten AM. Cloning of a cDNA encoding the murine orphan receptor RZR/ROR gamma and characterization of its response element. Gene. 1996 Nov 28; 181(1-2):199-206.

#### **Related Products**

00-5521 Foxp3 Fixation/Permeabilization Concentrate and Diluent

00-5523 Foxp3 Staining Buffer Set

11-7177 Anti-Mouse IL-17A FITC (eBio17B7)

12-4321 Rat IgG2a K Isotype Control PE

14-6981 Anti-Mouse ROR gamma (t) Purified (B2D)

34-8172 Mouse IL-17AF Recombinant Protein Carrier-Free

45-5825 Anti-Human/Mouse T-bet PerCP-Cy5.5 (eBio4B10 (4B10, 4-B10))

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