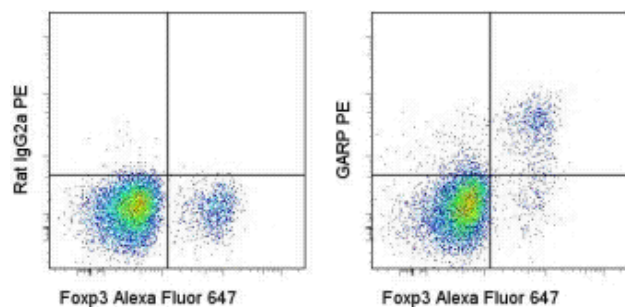


## Anti-Mouse GARP PE

**Catalog Number:** 12-9891

**Also Known As:** Lrrc32, Garpin

**RUO: For Research Use Only. Not for use in diagnostic procedures.**



BALB/c splenocytes were stimulated with Anti-Mouse CD3e Functional Grade Purified (cat. 16-0031), Mouse CD28 Functional Grade Purified (cat. 16-0281), and Mouse IL-2 Recombinant Protein (cat. 14-8021) for two days. To exclude dead cells from analysis, cells were stained with Fixable Viability Dye eFluor<sup>®</sup> 450 (cat. 65-0863). Then cells were stained with Anti-Mouse CD4 FITC (cat. 11-0042) and 0.125 ug of Rat IgG2a kappa Isotype Control PE (cat. 12-4321) (left) or 0.125 ug of Anti-Mouse GARP PE (right), followed by intracellular staining with Anti-Mouse/Rat FcγR3 Alexa Fluor<sup>®</sup> 647. Viable CD4 positive cells in the lymphocyte gate were used for analysis.

### Product Information

**Contents:** Anti-Mouse GARP PE


**REF** **Catalog Number:** 12-9891

**Clone:** YGIC86


**Concentration:** 0.2 mg/mL

**Host/Isotype:** Rat IgG2a, kappa

**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.

**LOT** **Batch Code:** Refer to Vial

 **Use By:** Refer to Vial

### Description

The YGIC86 monoclonal antibody reacts with mouse Glycoprotein A Repetitions Predominant (GARP, also known as Lrrc32 or Garpin). GARP is an approximately 80 kDa glycoprotein that is expressed on the cell surface. Using northern blot, RT-PCR or microarray analyses, the expression of GARP has been reported in placenta, lung, kidney, heart, ovary, liver, skeletal muscle, and pancreas. Protein expression has been observed on megakaryocytes, platelets and activated regulatory T (Treg) cells. The expression of GARP on Treg cells has been reported to be necessary for the suppressive function of Treg cells, possibly related to its role as a cell surface receptor for LAP/TGF beta.

When looking for expression of GARP on platelets, it is recommended to use the FcγR3 Staining Buffer Set (cat. 00-5523) to fix the platelets before staining with this YGIC86 monoclonal antibody. Fixation/permeabilization is not necessary when staining Treg cells.

YGIC86 does not cross-react to rat GARP.

### Applications Reported

This YGIC86 antibody has been reported for use in flow cytometric analysis.

### Applications Tested

This YGIC86 antibody has been tested by flow cytometric analysis of mouse spleen cells activated with anti-CD3, anti-CD28, and recombinant mouse IL-2. This can be used at less than or equal to 0.25 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.

### References

Oida T, Weiner HL. TGF-beta induces surface LAP expression on murine CD4 T cells independent of FcγR3 induction. PLoS One. 2010 Nov 24;5(11):e15523. (YGIC86, FC, PubMed)

Oida T, Weiner HL. Overexpression of TGF-beta 1 gene induces cell surface localized glucose-regulated protein 78-associated latency-associated peptide/TGF-beta. J Immunol. 2010 Sep 15;185(6):3529-35. (YGIC86, FC, PubMed)

Wang R, Kozhaya L, Mercer F, Khaitan A, Fujii H, Unutmaz D. Expression of GARP selectively identifies activated human FOXP3+ regulatory T cells. Proc Natl Acad Sci USA. 2009 Aug 11;106(32):13439-44.

Tran DQ, Andersson J, Wang R, Ramsey H, Unutmaz D, Shevach EM. GARP (LRRC32) is essential for the surface expression of latent

TGF-beta on platelets and activated FOXP3+ regulatory T cells. *Proc Natl Acad Sci USA*. 2009 Aug 11;106(32):13445-50.

Wang R, Wan Q, Kozhaya L, Fujii H, Unutmaz D. Identification of a regulatory T cell specific cell surface molecule that mediates suppressive signals and induces Foxp3 expression. *PLoS One*. 2008 Jul 16;3(7):e2705.

Macaulay IC, Tijssen MR, Thijssen-Timmer DC, Gusnanto A, Steward M, Burns P, Langford CF, Ellis PD, Dudbridge F, Zwaginga JJ, Watkins NA, van der Schoot CE, Ouwehand WH. Comparative gene expression profiling of in vitro differentiated megakaryocytes and erythroblasts identifies novel activatory and inhibitory platelet membrane proteins. *Blood*. 2007 Apr 15;109(8):3260-9.

Roubin R, Pizette S, Ollendorff V, Planche J, Birnbaum D, Delapeyriere O. Structure and developmental expression of mouse Garp, a gene encoding a new leucine-rich repeat-containing protein. *Int J Dev Biol*. 1996 Jun;40(3):545-55.

Ollendorff V, Noguchi T, deLapeyriere O, Birnbaum D. The GARP gene encodes a new member of the family of leucine-rich repeat-containing proteins. *Cell Growth Differ*. 1994 Feb;5(2):213-9.

**Related Products**

- 11-0042 Anti-Mouse CD4 FITC (RM4-5)
- 12-4321 Rat IgG2a K Isotype Control PE (eBR2a)
- 14-8021 Mouse IL-2 Recombinant Protein
- 16-0031 Anti-Mouse CD3e Functional Grade Purified (145-2C11)
- 16-0281 Anti-Mouse CD28 Functional Grade Purified (37.51)
- 51-5773 Anti-Mouse/Rat Foxp3 Alexa Fluor® 647 (FJK-16s)
- 65-0863 Fixable Viability Dye eFluor® 450

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