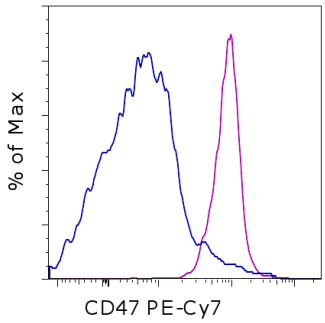
Anti-Mouse CD47 PE-Cyanine7

Catalog Number: 25-0471
Also known as: Integrin associated protein, IAP
RUO: For Research Use Only. Not for use in diagnostic procedures.



Staining of C57BL/6 splenocytes with 0.5 ug of Rat IgG2a K Isotype Control PE-Cyanine7 (cat. 25-4321) (blue histogram) or 0.5 ug of Anti-Mouse CD47 PE-Cyanine7 (purple histogram). Total viable cells were used for analysis.

Product Information

Contents: Anti-Mouse CD47 PE-Cyanine7
REF **Catalog Number:** 25-0471
Clone: miap301
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. This tandem dye is sensitive to photo-induced oxidation. Protect this vial from light during storage, handling & experimental procedures.
LOT **Batch Code:** Refer to vial
Use By: Refer to vial
Contains sodium azide

Description

The monoclonal antibody miap301 reacts to CD47 also known as integrin-associated protein (IAP), and neurophilin. CD47 is a glycosylated five transmembrane protein with a small cytoplasmic domain. CD47 is involved in adhesion through interactions with SIRP (signal regulator protein) and is non-covalently associated with ß3 integrins CD51/CD61, CD41/CD61. It is also known to be the receptor for thrombospondin. T cell expression of CD47 can mediate activation or apoptosis (in the presence of high levels of thrombospondin). Expression is found in the majority of hematopoietic cells including T and B cells, monocytes, platelets and erythrocytes (as part of the Rh complex). Expression is also found in non-hematopoietic cells.

No crossreactivity is seen against human CD47.

Applications Reported

This miap301 antibody has been reported for use in flow cytometric analysis.

Applications Tested

This miap301 antibody has been tested by flow cytometric analysis of mouse splenocytes. This can be used at less than or equal to 1 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 10^5 to 10^8 cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

Light sensitivity: This tandem dye is sensitive photo-induced oxidation. Please protect this vial and stained samples from light.

Fixation: Samples can be stored in IC Fixation Buffer (cat. 00-8222) (100 uL cell sample + 100 uL IC Fixation Buffer) or 1-step Fix/Lyse Solution (cat. 00-5333) for up to 3 days in the dark at 4°C with minimal impact on

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brightness and FRET efficiency/compensation. Some generalizations regarding fluorophore performance after fixation can be made, but clone specific performance should be determined empirically.

References

Chang HP, Ma YL, Wan FJ, Tsai LY, Lindberg FP, Lee EH. Functional blocking of integrin-associated protein impairs memory retention and decreases glutamate release from the hippocampus. Neuroscience. 2001;102(2):289-96

Babic I, Schallhorn A, Lindberg FP, Jirik FR. SHPS-1 induces aggregation of Ba/F3 pro-B cells via an interaction with CD47. J Immunol. 2000 Apr 1;164(7):3652-8. (**miap301**, FA (blocking cell aggregation in vitro), PubMed)

Jiang P, Lagenaur CF, Narayanan V. Integrin-associated protein is a ligand for the P84 neural adhesion molecule. J Biol Chem. 1999 Jan 8;274(2):559-62.

Mouro-Chanteloup I, Delaunay J, et al. 2003. Evidence that the red cell skeleton protein 4.2 interacts with the Rh membrane complex member CD47. Blood 101(1):338-44. (**miap301**, WB, PubMed)

Chang HP, Lindberg FP, et al. 1999. Impaired memory retention and decreased long-term potentiation in integrin-associated protein-deficient mice. (**miap301**, WB, PubMed)

Related Products

25-4321 Rat IgG2a K Isotype Control PE-Cyanine7 (eBR2a)

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