

Anti-Mouse CD47 Functional Grade Purified

Catalog Number: 16-0471

Also Known As: Integrin associated protein, IAP

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

Product Information

Contents: Anti-Mouse CD47 Functional Grade Purified

REF **Catalog Number:** 16-0471

Clone: miap301

Concentration: 1 mg/mL

Host/Isotype: Rat IgG2a, kappa


Handling Conditions: Use in sterile environment.

Endotoxin Level: Less than 0.001 ng/ug antibody, as determined by the LAL assay.

Formulation: aqueous buffer, no sodium azide

 **Temperature Limitation:** Store at 2-8°C.

LOT **Batch Code:** Refer to Vial

 **Use By:** Refer to Vial

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 β 3 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 and functional assays (blocking cell aggregation *in vitro*).

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 μ g per million cells in a 100 μ l total staining volume. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

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

11-4811 Anti-Rat IgG FITC

16-4321 Rat IgG2a K Isotype Control Functional Grade Purified (eBR2a)

17-0031 Anti-Mouse CD3e APC (145-2C11)

