

## Anti-CD47 [mIAP301] Bulk Size Ab01569-7.4-BT

This antibody was created using our proprietary Fc Silent™ engineered Fc domain containing key point mutations that abrogate binding to Fc gamma receptors.

**Isotype and Format:** Rat IgG2a, Fc Silent™, Kappa

**Clone Number:** mIAP301

**Alternative Name(s) of Target:** IAP; Leukocyte surface antigen CD47; Integrin-associated protein; integrin associated protein; MIAP 301; MIAP-301

**UniProt Accession Number of Target Protein:** Q61735

**Published Application(s):** IP, WB, Block, FC, IF

**Published Species Reactivity:** Mouse

**Immunogen:** MIAP301 was prepared by immunizing rats with intact CD47 purified from mouse placenta.

**Specificity:** MIAP301 binds specifically to the extracellular domain of CD47 (exon 2 that encodes both the predicted signal peptide cleavage site and the entire Ig domain). CD47 plays a role in cell adhesion by acting as an adhesion receptor for THBS1 on platelets and in (beta-3) integrin modulation. Functions as a SIRPA receptor - binding prevents maturation of immature dendritic cells and inhibits cytokine production by mature dendritic cells. CD47 also interacts with SIRPG which mediates cell-cell adhesion, enhances superantigen-dependent T-cell-mediated proliferation and costimulates T-cell activation. Plays an important role in memory formation and synaptic plasticity in the hippocampus.

**Application Notes:** MIAP301 can block murine CD47 interactions with SIRPα and functionally blocks CD47 in vivo in murine soft tissue ischemia and skin graft models (Soto-Pantoja et al. 2012). This antibody has also been used for FC (Olsson et al. Blood. 2005 May 1; 105(9): 3577–3582.). MIAP301 has also been shown to block KCl-evoked glutamate release from the hippocampus in mice, inhibiting glutamate release and thus impair memory retention (Chang et al. 2001).

**Antibody First Published in:** Lindberg et al. Decreased Resistance to Bacterial Infection and Granulocyte Defects in IAP-Deficient Mice Science. 1996 Nov 1;274(5288):795-8. PMID:8864123

**Note on publication:** Describes the use of MIAP301 in determining CD47 tissue distribution and to ensure no functional fragment of CD47 was expressed in CD47 -/- KO mice.

## Product Form

**Size:** 1 mg Purified antibody in bulk size.

**Purification:** Protein A affinity purified

**Supplied In:**

PBS only.

**Storage Recommendation:** Store at 4°C for up to 3 months. Note, this antibody is provided without added preservatives, it is therefore recommended this antibody be handled under sterile conditions. For longer storage, aliquot and store at -20°C.

**Concentration:** 1 mg/ml.

Important note – This product is for research use only. It is not intended for use in therapeutic or diagnostic procedures for humans or animals.