

## Anti-CD47 [mIAP301] VivopureX 10 mg Ab01569-3.3-VXL

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

This chimeric mouse antibody was made using the variable domain sequences of the original Rat IgG2a format, for improved compatibility with existing reagents, assays and techniques.

**Isotype and Format:** Mouse IgG2b, [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:** 10 mg VivopureX products are produced at high purity (>98%), low endotoxin (<0.5 EU/mg) and are formulated without preservatives. These antibodies are chimerized to have an Fc domain matching their target species to reduce immunogenicity and give you the optimal effector function for your experiment. As a result VivopureX products are the ideal choice for in vivo research applications.

**Purification:** Protein A affinity purified

**Supplied In:** PBS only.

**Storage Recommendation:** All VivopureX products are formulated in PBS only without addition of preservatives. To ensure optimal storage and prevent microbial contamination, only open and dispense under sterile conditions.

**Concentration:**  $\geq 1$ mg (see vial label for exact conc)

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