

# anti-human/ -porcine CD47

## Monoclonal Antibody MEM-122 to CD47

Cat-No: **21270471**

100 µg in 100 µl

**Clone:** MEM-122

**Specificity:** The antibody MEM-122 reacts with CD47 (Integrin Associated Protein), a 50-55 kDa membrane adhesion molecule (thrombospondin receptor; immunoglobulin supergene family) expressed on leukocytes, platelets and erythrocytes. It is also expressed on epithelial cells, endothelial cells, fibroblasts and many tumor cell lines.

**HLDA VI; WS Code AS A051**

**Isotype subclass:** Mouse IgM

**Species Reactivity:** human, non-human primates, porcine

**Immunogen:** COS-7 (African green monkey) cells

**Form:** Purified from ascites by gel filtration and precipitation methods.

**Purity:** > 98%

**Physical state:** Liquid

**Buffer/Additives/Preservative:** PBS with 15 mM sodium azide, pH 7.4.

**Expiration date:** The reagent is stable until the expiry date stated on the vial label.

**Storage conditions:** Store at 4°C. For long-term storage aliquot and store at -20°C. Avoid freeze/thaw cycles.

**Application:** Flow Cytometry  
Western Blotting  
Immunohistochemistry (frozen sections).

**References:** □ \*Barazi HO and others: 2002 Nov 8;277(45):42859-66.  
□ \*Murata T and others: 2006 Nov 29;26(48):12397-407.  
□ \*Ide K and others: 2007 Mar 20;104(12):5062-6.  
□ \*Orazizadeh M and others: 2008 Jan 10;10(1):R4  
□ \*Isenberg JS and others: 2008 Jan;247(1):180-90.

**Background: CD47** (integrin-associated protein, IAP) is an ubiquitously expressed cell surface transmembrane glycoprotein interacting with several integrins and regulating their functions. Engagement of CD47 by soluble ligands or counter receptors modulates various signaling pathways, such as activation of heterotrimeric G proteins. Binding secreted thrombospondin-1, CD47 counteracts graft vascularization. CD47 acts also as a ligand for CD172a (signal regulatory protein  $\alpha$ , SIRP $\alpha$ ), an immune inhibitory receptor on macrophages; this interaction prevents phagocytosis of CD47-positive cells. Moreover, CD47-CD172a system affects cell migration, B cell adhesion and T cell activation. CD47 is also involved in modulation of chondrocyte responses to mechanical signals, and promotes neuronal development, being especially abundant in synapse-rich regions of brain and retina.

**Warning:** Sodium azide is harmful if swallowed (R22). Keep out of reach of children (S2). Keep away from food, drink and animal feeding stuff (S13). Wear suitable protective clothing (S36). If swallowed, seek medical advice immediately and show this container or label (S46). Contact with acids liberates very toxic gas (R32). Azide compounds should be flushed with large volumes of water during disposal to avoid deposits in lead or copper plumbing where explosive conditions can develop.

This material is offered for **research only**. Not for use in human. For in vitro use only. ImmunoTools will not be held responsible for patent infringement or other violations that may occur with the use of our products.

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