

anti-human CD47

Monoclonal Antibody HIRH47 to CD47 (Human)

Cat-No: **21810471**

100 µg in 100 µl

Clone: HIRH47

Specificity: The antibody HIRH47 recognizes a 42-52 kDa five-span transmembrane glycoprotein called Rh-associated protein or integrin-associated protein (IAP) or ovarian carcinoma antigen 3 (OA3). CD47 antigen has broad distribution including all hematopoietic cells, leuko, erythrocytes and platelets, epithelial cells, fibroblasts, other tissue cells (strong expression in brain) and many tumor cell lines. It is an adhesion molecule and as a receptor for thrombospondin.

Isotype subclass: Mouse IgG1

Form: Purified by protein G affinity chromatography

Purity: > 95% (by SDS-PAGE).

Physical state: Liquid

Buffer/Additives/Preservative: PBS containing 0.09 % sodium azide (pH 7.2).

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

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 α , SIRP α), 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.

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Gladiolenweg 2; 26169 Friesoythe; Germany
phone:+49-(0)4491-400997, fax:+49-(0)4491-400998, info@immunotools.com
www.immunotools.com