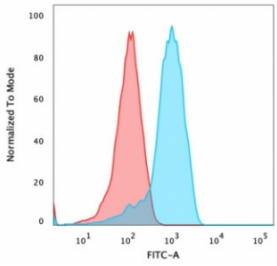
CD47 Antibody B6H12.2 / OA3 Antibody [clone B6H12.2] (V2069)

Catalog No.	Formulation	Size
V2069-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V2069-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V2069SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

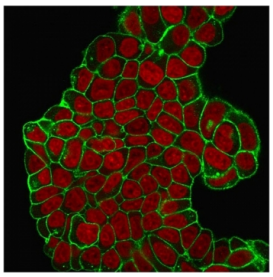
Citations (8)

Bulk quote request

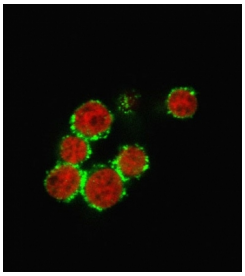
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	B6H12.2
Purity	Protein G affinity chromatography
Gene ID	961
RRID	AB_3756660
Localization	Cell surface, cytoplasmic
Applications	Western blot: 1-2ug/ml Flow cytometry: 1-2ug/million cells Immunofluorescence: 1-2ug/ml
Limitations	This CD47 Antibody B6H12.2 / OA3 Antibody is available for research use only.



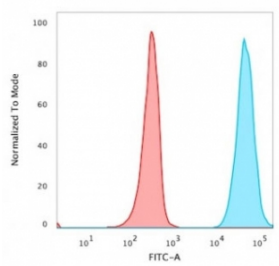
CD47 Antibody B6H12.2 in Human MCF7 Breast Cancer Cells FACS. Flow cytometry testing of PFA-fixed human MCF7 breast cancer cells with CD47 Antibody clone B6H12.2. The antibody-stained population (blue) shows a pronounced rightward fluorescence shift relative to the isotype control (red), with clear separation between the distributions. The strong shift demonstrates detection of endogenous CD47 in fixed and permeabilized MCF7 cells and supports cellular recognition with the OA3 Antibody.



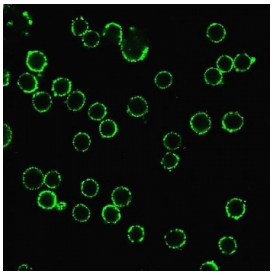
CD47 Antibody B6H12.2 in Human MCF7 Breast Cancer Cells IF. Immunofluorescence staining of PFA-fixed human MCF7 breast cancer cells with CD47 Antibody clone B6H12.2 (green) and RedDot nuclear stain (red). Green fluorescence is distributed prominently around the cell periphery, with additional intracellular signal visible throughout the cells, while nuclei are delineated by the red counterstain. The staining demonstrates cellular detection of CD47 with the OA3 Antibody.



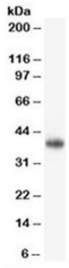
CD47 Antibody B6H12.2 in Human Jurkat T Cells IF. Immunofluorescence staining of PFA-fixed human Jurkat T cells with CD47 Antibody clone B6H12.2 (green) and RedDot nuclear stain (red). Strong green fluorescence is visible throughout the rounded Jurkat cells and around their periphery, with the red counterstain identifying nuclei. This distinct cellular staining demonstrates recognition of endogenous CD47 in a human T-cell leukemia model with the OA3 Antibody.



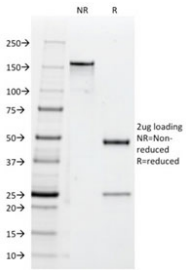
CD47 Antibody B6H12.2 Detects Live Human Jurkat T Cells FACS. Flow cytometry testing of live human Jurkat T cells with CD47 Antibody clone B6H12.2. The antibody-stained population (blue) shows a strong rightward fluorescence shift relative to the isotype control (red), demonstrating recognition of native CD47 exposed on the surface of intact, non-fixed cells. This live-cell detection is particularly relevant for the cell-surface biology of CD47 and supports recognition of native OA3 Antibody epitopes.



CD47 Antibody B6H12.2 Shows Cell-Surface Staining of Live Jurkat Cells IF. Immunofluorescence staining of live human Jurkat T cells with CD47 Antibody clone B6H12.2 (green). Strong green fluorescence outlines the rounded cells, producing prominent peripheral staining consistent with localization of CD47 at the plasma membrane. Detection without fixation or permeabilization demonstrates recognition of extracellularly accessible CD47 on intact cells and provides complementary live-cell validation for the OA3 Antibody.



CD47 Antibody B6H12.2 Western Blot of Human Brain. Western blot testing of human brain lysate with CD47 Antibody clone B6H12.2. Immunoreactivity is detected across approximately 35-60 kDa rather than as a single sharp band at the predicted molecular weight of approximately 35 kDa. This broader and higher apparent molecular weight is consistent with the extensive glycosylation of native CD47, which can substantially alter its electrophoretic migration. The observed target-range signal supports western blot detection with the OA3 Antibody.



Purified CD47 Antibody B6H12.2 SDS-PAGE. SDS-PAGE analysis of purified, BSA-free CD47 Antibody clone B6H12.2 provides a quality-control assessment of antibody integrity and purity. The non-reduced preparation shows predominantly intact immunoglobulin near 150 kDa, while reducing conditions produce the expected antibody heavy and light chains at approximately 50 kDa and 25 kDa. The characteristic electrophoretic profile supports the integrity of the purified OA3 Antibody preparation.

Description

CD47 Antibody B6H12.2 / OA3 Antibody recognizes CD47, a widely expressed transmembrane glycoprotein belonging to the immunoglobulin superfamily. CD47 has also been known as OA3 and integrin-associated protein (IAP), reflecting different stages in its discovery and characterization. The protein participates in immune recognition, cell adhesion, migration, and signal transduction through interactions with extracellular ligands and neighboring membrane proteins. Among its best-characterized binding partners are signal regulatory protein alpha (SIRP alpha) and thrombospondin-1.

CD47 contains an extracellular immunoglobulin-like domain followed by five transmembrane segments and a short alternatively spliced cytoplasmic tail. Its association with integrins and other membrane proteins allows CD47 to participate in signaling complexes that influence adhesion, motility, survival, and responses to the extracellular environment. The OA3 name originated from early characterization of the antigen, while CD47 subsequently became the standardized cluster-of-differentiation designation for the protein.

The interaction between CD47 and SIRP alpha is particularly important in immunology. SIRP alpha is expressed prominently by myeloid cells, including macrophages, and its engagement by CD47 can initiate inhibitory signaling that restrains phagocytosis. This interaction contributes to mechanisms that distinguish healthy self cells from targets for clearance. CD47 expression has consequently become an important subject in tumor immunology because increased expression can provide malignant cells with a mechanism for reducing macrophage-mediated elimination.

CD47 biology extends beyond the SIRP alpha pathway. Interaction with thrombospondin-1 and association with integrins connect CD47 to additional processes involving cellular adhesion, migration, vascular responses, survival, and tissue homeostasis. Because these functions depend on cellular context and interacting partners, CD47 has been investigated across immunology, cancer biology, hematology, and cell signaling research.

Clone B6H12.2 has a substantial history of use in published CD47 research. Same-clone studies have used B6H12.2 to investigate CD47 recognition and function, including experiments examining interactions involving the CD47-SIRP alpha pathway. This literature history is useful when selecting a well-established clone, although published experimental uses should be distinguished from applications independently validated for a specific commercial preparation. NSJ Bioreagents offers clone B6H12.2 for research into CD47 expression and biology.

A CD47 Antibody such as clone B6H12.2 provides a well-established monoclonal reagent for investigating CD47 expression and receptor biology, while an OA3 Antibody provides historical antigen terminology for studies of immune recognition, cell adhesion, and intercellular signaling.

For a Protein Microarray Validated antibody targeting the same protein, see our CD47 Antibody CD47/2937 / IAP Monoclonal Antibody.

Application Notes

The concentration stated for each application is a general starting point. Variations in protocols, secondaries and substrates may require the CD47 Antibody B6H12.2 / OA3 Antibody to be titered up or down for optimal performance.

Immunogen

Intact CD47 purified from placenta was used as the immunogen for this CD47 Antibody B6H12.2.

Storage

Store the CD47 Antibody B6H12.2 at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

OA3 antibody, IAP antibody, Integrin Associated Protein antibody, MER6 antibody, Rh-Related Antigen antibody

References (2)

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