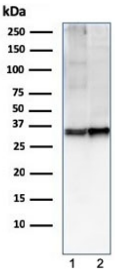
CD47 Antibody CD47/2937 / IAP Monoclonal Antibody [clone CD47/2937] (V7536)

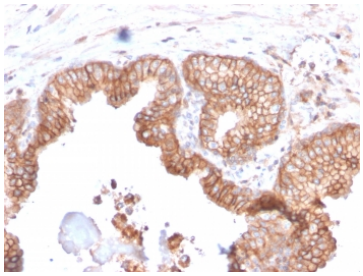
Catalog No.	Formulation	Size
V7536-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V7536-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V7536SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V7536IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

Bulk quote request

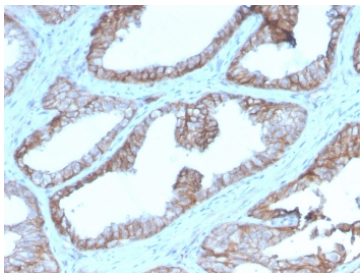
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2c, kappa
Clone Name	CD47/2937
Purity	Protein G affinity chromatography
UniProt	Q08722
Localization	Cell surface, cytoplasmic
Applications	ELISA: order BSA/sodium azide-free format for coating Western blot: 1-2ug/ml for 60 min at RT Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT
Limitations	This CD47 Antibody CD47/2937 / IAP Monoclonal Antibody is available for research use only.



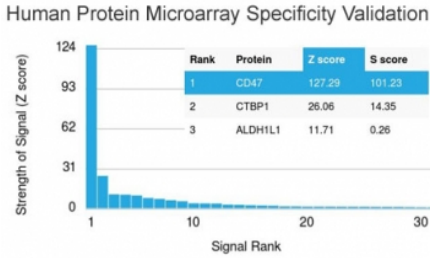
CD47 Antibody CD47/2937 Western Blot of U-87 MG and THP-1 Cells. Western blot testing of human U-87 MG (lane 1) and THP-1 (lane 2) cell lysates with CD47 Antibody clone CD47/2937. Both samples show a strong predominant band at approximately 35 kDa, within the expected 35-60 kDa range for CD47. Variation in the apparent molecular weight of CD47 is expected because the extracellular domain is extensively glycosylated. Relatively little additional banding is visible in either lane, supporting detection of endogenous CD47 with the IAP Monoclonal Antibody.



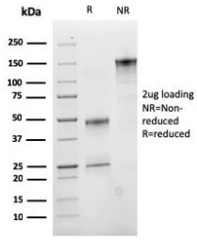
CD47 Antibody CD47/2937 Shows Membranous Staining in Prostate Carcinoma IHC. Immunohistochemistry staining of FFPE human prostate carcinoma tissue with CD47 Antibody clone CD47/2937. HIER was performed by boiling tissue sections in pH 9 10mM Tris with 1mM EDTA for 10-20 min followed by cooling before testing. Strong brown staining prominently outlines the membranes of malignant epithelial cells, with additional cytoplasmic signal visible in portions of the tumor. The distinct cell-surface pattern is consistent with CD47 localization and supports tissue detection with the IAP Monoclonal Antibody.



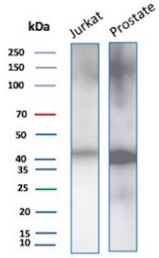
CD47 Antibody CD47/2937 Highlights Prostate Tumor Glands IHC. Immunohistochemistry staining of FFPE human prostate carcinoma tissue with CD47 Antibody clone CD47/2937. HIER was performed by boiling tissue sections in pH 9 10mM Tris with 1mM EDTA for 10-20 min followed by cooling before testing. Brown staining strongly delineates the epithelial cells lining malignant glandular structures, with prominent membranous and cytoplasmic labeling compared with the surrounding stroma. This second tumor field demonstrates the distribution of CD47 using the IAP Monoclonal Antibody.



CD47 Antibody CD47/2937 Protein Microarray Validated. HuProt protein microarray analysis containing more than 19,000 full-length human proteins demonstrates strong target recognition by CD47 Antibody clone CD47/2937. CD47 ranks first with a Z-score of 107.28, compared with 20.96 for the next-highest protein, CTHP1, producing an S-score of 86.23. The Z-score measures signal strength in standard deviations above the array mean, while the S-score measures separation between the target and next-highest signal. The large separation supports the specificity of this IAP Monoclonal Antibody.



Purified CD47 Antibody CD47/2937 SDS-PAGE. SDS-PAGE analysis of 2 ug purified, BSA-free CD47 Antibody clone CD47/2937 under reducing (R) and non-reducing (NR) conditions. The non-reduced preparation shows the intact immunoglobulin migrating near 150 kDa, while reduction produces the expected antibody heavy and light chains at approximately 50 kDa and 25 kDa. The electrophoretic profile provides confirmation of antibody integrity and purity for the IAP Monoclonal Antibody preparation.



CD47 Antibody CD47/2937 Western Blot of Jurkat Cells and Prostate Tissue. Western blot testing of human Jurkat cell lysate and human prostate tissue lysate with CD47 Antibody clone CD47/2937. Both samples show prominent immunoreactivity within the expected 35-60 kDa range for CD47, with the prostate sample displaying a broader signal than Jurkat cells. This heterogeneous migration is compatible with the extensive and variable glycosylation of CD47. The target-range signal in two biologically distinct human samples further supports western blot detection with the IAP Monoclonal Antibody.

Description

CD47 Antibody CD47/2937 / IAP Monoclonal Antibody recognizes CD47, a widely expressed transmembrane glycoprotein belonging to the immunoglobulin superfamily. CD47 was originally identified as integrin-associated protein (IAP) because of its association with integrins, particularly alpha v beta 3. It is now recognized as a multifunctional cell-surface protein involved in cell adhesion, migration, signaling, and regulation of immune recognition. CD47 interacts with several extracellular partners, most notably signal regulatory protein alpha (SIRP alpha) and thrombospondin-1.

CD47 contains an extracellular immunoglobulin-like domain, five membrane-spanning segments, and a short alternatively spliced cytoplasmic tail. This unusual membrane topology distinguishes it from many other immunoglobulin superfamily proteins. Association with integrins and other membrane proteins allows CD47 to participate in signaling complexes that influence cellular adhesion, motility, survival, and responses to the extracellular environment. An IAP Monoclonal Antibody can therefore support research into both the original integrin-associated functions of CD47 and its broader roles in cell signaling.

The interaction between CD47 and SIRP alpha has become a major area of immunological and cancer research. SIRP alpha is expressed prominently on myeloid cells, including macrophages, and engagement by CD47 can generate inhibitory signals that restrain phagocytosis. This CD47-SIRP alpha axis is commonly described as a mechanism of self-recognition that helps prevent inappropriate clearance of healthy cells. Increased CD47 expression has been reported in numerous malignancies and is being investigated as one mechanism through which tumor cells may reduce macrophage-mediated elimination.

CD47 also interacts with thrombospondin-1, linking the protein to additional pathways involving cellular responses, vascular biology, and tissue homeostasis. Because CD47 participates in several receptor-ligand systems, its biological effects depend on cellular context, interacting partners, and the organization of surrounding membrane proteins. Research on CD47 therefore extends beyond immune evasion to encompass adhesion, migration, cell survival, and intercellular communication.

The alternative names IAP, integrin-associated protein, OA3, and MER6 reflect different stages in the discovery and characterization of CD47. NSJ Bioreagents offers clone CD47/2937 for research into CD47 expression, immune recognition, cell adhesion, and signaling.

A CD47 Antibody such as clone CD47/2937 provides a monoclonal reagent for investigating CD47 expression and receptor biology, while an IAP Monoclonal Antibody provides established alternative terminology for studies of integrin-associated signaling, immune regulation, and cell-cell interactions.

Explore related cell-surface markers on our CD Antibodies page.

Application Notes

Optimal dilution of the CD47 Antibody CD47/2937 / IAP Monoclonal Antibody should be determined by the researcher.

1. The prediluted format is supplied in a dropper bottle and is optimized for use in IHC. After epitope retrieval step (if required), drip mAb solution onto the tissue section and incubate at RT for 30 min.

Immunogen

Amino acids 18-135 from the human protein were used as the immunogen for the CD47 Antibody CD47/2937.

Storage

Store the CD47 Antibody CD47/2937 at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

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

Copyright © NSJ Bioreagents. All rights reserved.