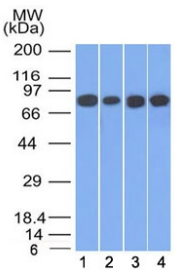
Gamma Catenin Antibody 11E4 / JUP Monoclonal Antibody [clone 11E4.] (V3204)

Catalog No.	Formulation	Size
V3204-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V3204-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V3204SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

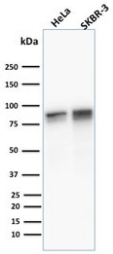
Citations (15)

Bulk quote request

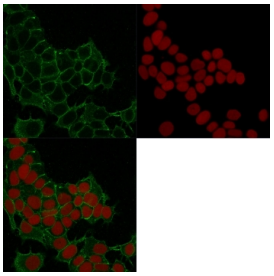
Species Reactivity	Human, Mouse
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	11E4.
Purity	Protein G affinity chromatography
UniProt	P14923
Localization	Cell surface, cytoplasmic, cell junctions
Applications	Immunofluorescence: 1-2ug/ml Western blot: 0.5-1ug/ml Flow cytometry: 1-2ug/10^6 cells
Limitations	This Gamma Catenin Antibody 11E4 / JUP Monoclonal Antibody is available for research use only.



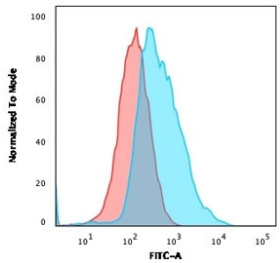
Gamma Catenin Antibody 11E4 Western Blot of Four Human Cell Lines. Western blot testing of human HT20 (lane 1), A549 (lane 2), HEK293 (lane 3) and A431 (lane 4) cell lysates with Gamma Catenin Antibody clone 11E4. A strong, discrete band is detected at approximately 80-85 kDa in all four samples, consistent with the predicted molecular weight of 80-87 kDa for plakoglobin. Signal intensity is relatively consistent across the panel, with little additional banding visible. This multi-cell-line analysis demonstrates endogenous JUP detection with the JUP Monoclonal Antibody.



Gamma Catenin Antibody 11E4 Western Blot of HeLa and SK-BR-3 Cells. Western blot testing of human HeLa (lane 1) and SK-BR-3 (lane 2) cell lysates with Gamma Catenin Antibody clone 11E4. Both samples show a prominent band near 80-90 kDa, consistent with the predicted molecular weight of 80-87 kDa for plakoglobin. The SK-BR-3 sample produces somewhat stronger signal, while little additional banding is apparent in either lane. This two-cell-line western blot further supports target detection with the JUP Monoclonal Antibody.



Gamma Catenin Antibody 11E4 in Human HeLa Cervical Cancer Cells IF. Immunofluorescence staining of human HeLa cervical cancer cells with Gamma Catenin Antibody clone 11E4 (green) and RedDot nuclear stain (red). The antibody produces prominent green staining along cell borders, with enrichment at contacts between neighboring cells and comparatively little nuclear signal. The merged image clearly demonstrates the characteristic junction-associated distribution expected for plakoglobin. This localization supports cellular detection of junctional JUP with the JUP Monoclonal Antibody.



Gamma Catenin Antibody 11E4 in Human MCF7 Breast Cancer Cells FACS. Flow cytometry analysis of PFA-fixed human MCF7 breast cancer cells with Gamma Catenin Antibody clone 11E4. The antibody-stained population (blue) shows a clear rightward fluorescence shift relative to the isotype control (red), with substantial separation between the distributions. The shift demonstrates detection of endogenous plakoglobin in fixed cells and supports use of the JUP Monoclonal Antibody for flow cytometric analysis.

Description

Gamma Catenin Antibody 11E4 / JUP Monoclonal Antibody recognizes gamma catenin, a member of the armadillo repeat protein family encoded by the JUP gene. More commonly known in some research areas as plakoglobin, JUP is an important component of intercellular junctions and participates in both desmosomes and adherens junctions. Through these structures, gamma catenin contributes to mechanical coupling between neighboring cells and helps maintain the organization and integrity of tissues exposed to physical stress.

Gamma catenin contains a central series of armadillo repeats that mediate interactions with several junction-associated proteins. Within desmosomes, JUP associates with desmosomal cadherins and plaque components that connect adhesion complexes to intermediate filaments. This organization provides mechanical stability to epithelial tissues and cardiac muscle. At adherens junctions, gamma catenin can also associate with classical cadherins and participate in protein complexes related to those containing beta catenin.

Although gamma catenin and beta catenin share considerable structural similarity, they have distinct biological roles. Both can participate in cadherin-associated complexes, but differences in their binding partners, localization, abundance, and signaling activities influence how each protein contributes to cell adhesion and cellular regulation. A Gamma Catenin Antibody can therefore be useful for specifically investigating JUP-associated junctional biology without treating all catenin family members as functionally equivalent.

The importance of JUP is particularly evident in mechanically active tissues. Alterations affecting plakoglobin function can compromise desmosomal organization and have been associated with inherited disorders involving cardiac and epithelial integrity. Changes in JUP expression or localization have also been studied in cancer, where disruption of normal cell-cell adhesion can accompany altered epithelial organization, invasion, and tumor progression.

The names gamma catenin, plakoglobin, and JUP are all widely encountered in the literature and reflect different aspects

of the protein's history and biology. NSJ Bioreagents offers clone 11E4 for research involving JUP expression, intercellular adhesion, desmosomal organization, and catenin-associated junctional complexes.

A Gamma Catenin Antibody such as clone 11E4 provides a monoclonal reagent for investigating plakoglobin expression and cell-cell junction biology, while a JUP Monoclonal Antibody provides gene-based terminology for studies of desmosomes, adherens junctions, and tissue organization.

For another monoclonal targeting this junctional protein, see our Plakoglobin Antibody 15F11 / Gamma Catenin Monoclonal Antibody.

Application Notes

Titration of the Gamma Catenin Antibody 11E4 / JUP Monoclonal Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

Recombinant full length human gamma Catenin fused to maltose binding protein was used as the immunogen for the Gamma Catenin Antibody 11E4. The epitope has been found to be in the N-terminal region.

Storage

Store the Gamma Catenin Antibody 11E4 at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

Plakoglobin antibody, JUP antibody, Junction Plakoglobin antibody, Junctional Plakoglobin antibody, Desmoplakin III antibody

References (1)

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