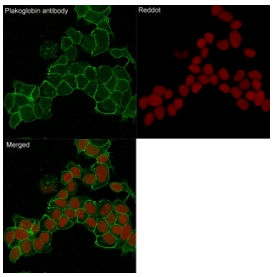
Plakoglobin Antibody 15F11 / Gamma Catenin Monoclonal Antibody [clone 15F11] (V3205)

Catalog No.	Formulation	Size
V3205-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V3205-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V3205SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

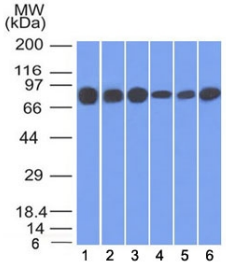
Citations (18)

Bulk quote request

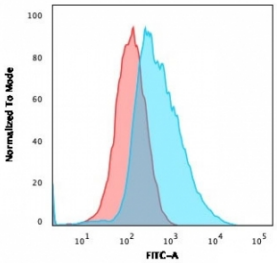
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	15F11
Purity	Protein G affinity chromatography
UniProt	P14923
Localization	Cell surface, cytoplasmic, cell junctions
Applications	Western blot: 1-2ug/ml Immunohistochemistry (FFPE): 1-2ug/ml Immunofluorescence: 1-2 ug/ml Flow cytometry: 1-2ug/million cells
Limitations	This Plakoglobin Antibody 15F11 / Gamma Catenin Monoclonal Antibody is available for research use only.



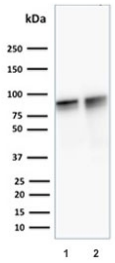
Plakoglobin Antibody 15F11 in Human HeLa Cells IF. Immunofluorescence staining of human HeLa cells with Plakoglobin Antibody clone 15F11 (green) and Reddot nuclear stain (red). The green signal strongly outlines cell borders, with particularly prominent labeling at contacts between adjacent cells. The merged image demonstrates the expected junction-associated distribution of plakoglobin with comparatively little nuclear signal. This distinct cell-cell border pattern supports detection of junctional JUP with the Gamma Catenin Monoclonal Antibody.



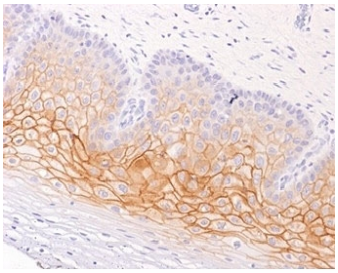
Plakoglobin Antibody 15F11 Western Blot of Six Human Cell Lines. Western blot testing of human HT20 (lane 1), HEK293 (lane 2), A431 (lane 3), MCF7 (lane 4), HEPG2 (lane 5) and A549 (lane 6) cell lysates with Plakoglobin Antibody clone 15F11. A strong, discrete band is detected at approximately 80-85 kDa in all six samples, consistent with the predicted molecular weight of 80-87 kDa for plakoglobin. Signal intensity is relatively consistent across the panel, with minimal additional banding visible. This broad endogenous detection supports the performance of the Gamma Catenin Monoclonal Antibody for western blot analysis.



Plakoglobin Antibody 15F11 in Human MCF7 Breast Cancer Cells FACS. Flow cytometry testing of PFA-fixed human MCF7 breast cancer cells with Plakoglobin Antibody clone 15F11. The antibody-stained population (blue) shows a clear rightward fluorescence shift relative to the isotype control (red), demonstrating detection of endogenous plakoglobin in fixed cells. The separation of the two distributions supports cellular detection of JUP with the Gamma Catenin Monoclonal Antibody.



Plakoglobin Antibody 15F11 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 Plakoglobin Antibody clone 15F11. Both samples show a predominant band at approximately 80-90 kDa, consistent with the predicted molecular weight of 80-87 kDa for plakoglobin. The HeLa and SK-BR-3 samples show slightly different apparent migration within this range, while additional banding is minimal. This two-cell-line analysis further supports target detection with the Gamma Catenin Monoclonal Antibody.



Plakoglobin Antibody 15F11 Shows Junctional Staining in Human Cervix IHC. Immunohistochemistry staining of FFPE human cervix tissue with Plakoglobin Antibody clone 15F11. HIER was performed by boiling tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min followed by cooling before testing. Strong brown staining prominently outlines the borders of epithelial cells, producing a characteristic intercellular junction pattern, while nuclei remain largely unstained. The localization is consistent with plakoglobin at epithelial cell-cell junctions and demonstrates tissue detection with the Gamma Catenin Monoclonal Antibody.

Description

Plakoglobin Antibody 15F11 / Gamma Catenin Monoclonal Antibody recognizes plakoglobin, a member of the armadillo repeat protein family encoded by the JUP gene. Also known as gamma catenin, plakoglobin is an important component of both desmosomes and adherens junctions. These intercellular junctions provide mechanical coupling between neighboring cells and help maintain the structural organization of epithelial and other mechanically stressed tissues. Plakoglobin therefore occupies an important position at the interface between cell adhesion, cytoskeletal organization, and cellular signaling.

Plakoglobin contains a central series of armadillo repeats that mediate interactions with multiple junctional proteins. In desmosomes, it associates with the cytoplasmic domains of desmosomal cadherins and contributes to linkage of these adhesion complexes with desmosomal plaque proteins and the intermediate filament cytoskeleton. This organization helps tissues withstand mechanical stress. At adherens junctions, plakoglobin can interact with classical cadherins and participate in complexes related to those formed by beta catenin.

The structural similarity between plakoglobin and beta catenin extends beyond their shared armadillo repeat architecture. Both proteins can associate with cadherin complexes, and plakoglobin has also been investigated for its potential influence on transcriptional signaling. However, the two proteins are not functionally interchangeable. Their relative abundance, subcellular localization, binding partners, and competition for junctional components can influence cell adhesion and signaling in different ways. A Plakoglobin Antibody can therefore help distinguish JUP-associated biology from processes involving other catenin family proteins.

JUP is particularly important in tissues exposed to substantial mechanical forces, including cardiac muscle and stratified epithelia. Pathogenic variants affecting plakoglobin can disrupt desmosomal integrity and are associated with disorders involving the skin and heart. JUP alterations have also been investigated in cancer, where changes in cell-cell adhesion, junctional organization, and signaling may accompany tumor progression and altered epithelial phenotype.

Because plakoglobin participates in two major classes of intercellular junctions, its study can provide insight into both desmosomal and adherens junction biology. The alternative name gamma catenin remains widely used in the literature and emphasizes the protein's relationship to other members of the catenin family. NSJ Bioreagents offers clone 15F11 for research involving JUP expression, intercellular adhesion, and junctional organization.

A Plakoglobin Antibody such as clone 15F11 provides a monoclonal reagent for investigating JUP expression and cell-cell junction biology, while a Gamma Catenin Monoclonal Antibody provides alternative terminology for studies of desmosomes, adherens junctions, and epithelial organization.

Explore additional antibodies involved in cell adhesion and signaling on our Signal Transduction Antibodies page.

Application Notes

The stated application concentrations are suggested starting amounts. Titration of the Plakoglobin Antibody 15F11 / Gamma Catenin Monoclonal Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

Recombinant full length chicken gamma Catenin was used as the immunogen for the Plakoglobin Antibody 15F11.

Storage

Store the Plakoglobin Antibody 15F11 at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

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

References (1)

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