

Mouse Anti-Plakophilin-2 [8H6]: MC0292

Intended Use: For Research Use Only

Description: Plakophilins 1, 2, 3 and 4 (PKP1-4) influence development and participate in linking cadherins to cytoskeletal intermediate filaments. Plakophilins 1-4 contain arm-repeat (armadillo) domains, and localize to nuclei and cell desmosomes (cell-cell junctions found in suprabasal layers of stratifying epithelia that undergo mechanical stress). Plakophilin-1 mediates increases in desmosomal protein content, desmosome assembly, and regulation of cell migration. Plakophilin-2 is important for desmosome assembly and is an essential morphogenic factor and architectural component of the heart. Plakophilin-3 plays a role in both desmosome-dependent adhesion and signaling pathways. Plakophilin-4 is a component of desmosomal adhesion plaques that regulates junctional plaque organization and cadherin function.

Specifications:

Clone: 8H6
 Source: Mouse
 Isotype: IgG1κ
 Reactivity: Human, mouse
 Localization: Nucleus
 Formulation: Antibody in PBS pH7.4, containing BSA and ≤ 0.09% sodium azide (NaN3)
 Storage: Store at 2°- 8°C
 Applications: IHC, Flow Cyt., IP, WB
 Package:

Description	Catalog No.	Size
Plakophilin-2 Concentrated	MC0292	1 ml

IHC Procedure*:

Positive Control Tissue: Colon carcinoma
 Concentrated Dilution: 10-50
 Pretreatment: Citrate pH6.0 or EDTA pH8.0, 15 minutes using Pressure Cooker, or 30-60 minutes using water bath at 95°-99°C
 Incubation Time and Temp: 30-60 minutes @ RT
 Detection: Refer to the detection system manual

* Result should be confirmed by an established diagnostic procedure.

References:

1. Arrhythmogenic cardiomyopathy: Identification of desmosomal gene variations and desmosomal protein expression in variation carriers. Wang L, et al. *Exp Ther Med* 15:2255-2262, 2018.
2. Expression of plakophilin 3 in diffuse malignant pleural mesothelioma. Mašić S, et al. *Histol Histopathol. Sep*;33(9):995-1004, 2018.
3. Up-regulation of plakophilin-2 is correlated with the progression of glioma. Zhang D et al. *Neuropathology*. 2017.
4. Expression of Desmoglein 2, Desmocollin 3 and Plakophilin 2 in Placenta and Bone Marrow-Derived Mesenchymal Stromal Cells. Hart ML et al. *Stem Cell Rev*. 2017.
5. Characterizing the Molecular Pathology of Arrhythmogenic Cardiomyopathy in Patient Buccal Mucosa Cells. Asimaki A, et al. *Circ Arrhythm Electrophysiol. Feb*;9(2):e003688, 2016.
6. Truncating plakophilin-2 mutations in arrhythmogenic cardiomyopathy are associated with protein haploinsufficiency in both myocardium and epidermis. Rasmussen TB et al. *Circ Cardiovasc Genet*. 2014.

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