# Desmoplakin (Phospho Ser165/166) Rabbit pAb

CatalogNo: YP1314

## Key Features

| Host Species | Reactivity | Applications |
|---|---|---|
| • Rabbit | • Human,Mouse,Rat | • WB |

| MW | Isotype |
|---|---|
| • 300kD (Observed) | • IgG |

## Storage

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| **Storage*** | -15°C to -25°C/1 year(Do not lower than -25°C) |
| **Formulation** | Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide. |

## Recommended Dilution Ratios

**WB 1:1000-2000**

## Basic Information

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| **Clonality** | Polyclonal |

## Immunogen Information

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|---|---|
| **Immunogen** | Synthesized phosho peptide around human Desmoplakin (Ser165 and 166) |
| **Specificity** | This antibody detects endogenous levels of Desmoplakin only when phosphorylated at Ser165 or ser166.This antibody does not recognize phosphorylated at other sites. |

## Target Information

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|---|---|
| **Gene name** | DSP |

**Protein Name** Desmoplakin (Ser165/166)

| Organism | Gene ID | UniProt ID |
|---|---|---|
| Human | 1832; | P15924; |
| Mouse | 109620; | E9Q557; |

**Cellular Localization** Cell junction, desmosome . Cytoplasm, cytoskeleton . Cell membrane . Innermost portion of the desmosomal plaque. Colocalizes with epidermal KRT5-KRT14 and simple KRT8-KRT18 keratins and VIM intermediate filaments network (PubMed:12802069). Localizes at the intercalated disk in cardiomyocytes (By similarity). .

**Tissue specificity** Expressed in oral mucosa (at protein level) (PubMed:30479852). Expressed in arrector pili muscle (at protein level) (PubMed:29034528). ; [Isoform DPI]: Apparently an obligate constituent of all desmosomes.; [Isoform DPII]: Resides predominantly in tissues and cells of stratified origin.

**Function** Disease:Defects in DSP are the cause of dilated cardiomyopathy with woolly hair and keratoderma (DCWHK) [MIM:605676]; also known as Carvajal syndrome or palmoplantar keratoderma with left ventricular cardiomyopathy and woolly hair. DCWHK is an autosomal recessive cardiocutaneous syndrome characterized by a generalized striate keratoderma particularly affecting the palmoplantar epidermis, woolly hair, and dilated left ventricular cardiomyopathy.,Disease:Defects in DSP are the cause of epidermolysis bullosa lethal acantholytic (EBLA) [MIM:609638]. EBLA is characterized by severe fragility of skin and mucous membranes. The phenotype is lethal in the neonatal period because of immense transcutaneous fluid loss. Typical features include universal alopecia, neonatal teeth, and nail loss. Histopathology of the skin shows suprabasal clefting and acantholysis throughout the spinous layer, mimicking pemphigus.,Disease:Defects in DSP are the cause of familial arrhythmogenic right ventricular dysplasia 8 (ARVD8) [MIM:607450]; also known as arrhythmogenic right ventricular cardiomyopathy 8 (ARVC8). ARVD is an autosomal dominant disease characterized by partial degeneration of the myocardium of the right ventricle, electrical instability, and sudden death. It is clinically defined by electrocardiographic and angiographic criteria; pathologic findings, replacement of ventricular myocardium with fatty and fibrous elements, preferentially involve the right ventricular free wall.,Disease:Defects in DSP are the cause of palmoplantar keratoderma striate type 2 (SPPK2) [MIM:125647]; also known as keratosis palmoplantaris striata II. SPPK2 is characterized by skin thickening in the palms (linear pattern) and the soles (island-like pattern) and flexor aspect of the fingers. Abnormalities of the nails, the teeth and the hair are rarely present.,Disease:Defects in DSP are the cause of skin fragility-woolly hair syndrome (SFWHS) [MIM:607655]. SFWHS is an autosomal recessive genodermatosis characterized by focal and diffuse palmoplantar keratoderma, hyperkeratotic plaques on the trunk and limbs, and woolly hair with varying degrees of alopecia.,Domain:The N-terminal region is required for localization to the desmosomal plaque and interacts with the N-terminal region of plakophilin 1. The C-terminal region interacts with intermediate filaments.,Function:Major high molecular weight protein of desmosomes. Involved in the organization of the desmosomal cadherin-plakoglobin complexes into discrete plasma membrane domains and in the anchoring of intermediate filaments to the desmosomes.,online information:Desmoplakin entry,PTM:Substrate of transglutaminase. Some glutamines and lysines are cross-linked to other desmoplakin molecules, to other proteins such as keratin, envoplakin, periplakin and involucrin, and to lipids like omega-hydroxyceramide.,similarity:Belongs to the plakin or cytolinker family.,similarity:Contains 17 plectin repeats.,similarity:Contains 2 spectrin repeats.,subcellular location:Innermost portion of the desmosomal plaque.,subunit:Homodimer.,tissue specificity:Isoform DPI is apparently an obligate constituent of all desmosomes; Isoform DPII resides predominantly in tissues and cells of stratified origin.,

## Validation Data

## Contact information


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