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Anti-Desmoglein 3 Antibody

Catalog # AP95804

Product Information

Application	WB, IHC, FC
Primary Accession	P32926
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Calculated MW	107533

Additional Information

Gene ID	1830
Other Names	CDHF6; Desmoglein-3; 130 kDa pemphigus vulgaris antigen; PVA; Cadherin family member 6
Target/Specificity	Recombinant fusion protein of human Desmoglein 3 expressed in E. Coli
Dilution	WB~~WB (1/500 - 1/1000) IHC~~1:100~500 FC~~FC (1/100 - 1/200)
Format	Mouse IgG1. Liquid in PBS, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

Name	DSG3 (HGNC:3050)
Synonyms	CDHF6
Function	A component of desmosome cell-cell junctions which are required for positive regulation of cellular adhesion (PubMed:31835537). Required for adherens and desmosome junction assembly in response to mechanical force in keratinocytes (PubMed:31835537). Required for desmosome-mediated cell-cell adhesion of cells surrounding the telogen hair club and the basal layer of the outer root sheath epithelium, consequently is essential for the anchoring of telogen hairs in the hair follicle (PubMed:9701552). Required for the maintenance of the epithelial barrier via promoting desmosome-mediated intercellular attachment of suprabasal epithelium to basal cells (By similarity). May play a role in the protein stability of the desmosome plaque components DSP, JUP, PKP1, PKP2 and PKP3 (PubMed:22294297). Required for YAP1 localization at the plasma membrane in keratinocytes in response to mechanical strain, via the formation of an interaction complex composed of DSG3, PKP1 and YWHAG (PubMed:31835537). May also be involved in the positive regulation of YAP1 target gene transcription and as a result cell

proliferation (PubMed:31835537). Positively regulates cellular contractility and cell junction formation via organization of cortical F-actin bundles and anchoring of actin to tight junctions, in conjunction with RAC1 (PubMed:22796473). The cytoplasmic pool of DSG3 is required for the localization of CDH1 and CTNNB1 at developing adherens junctions, potentially via modulation of SRC activity (PubMed:22294297). Inhibits keratinocyte migration via suppression of p38MAPK signaling, may therefore play a role in moderating wound healing (PubMed:26763450).

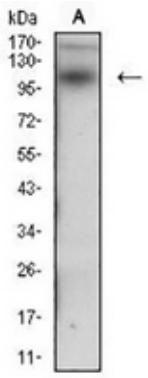
Cellular Location

Cell membrane; Single-pass type I membrane protein. Cell junction, desmosome {ECO:0000250|UniProtKB:O35902}. Cytoplasm. Cell junction, tight junction. Cell junction

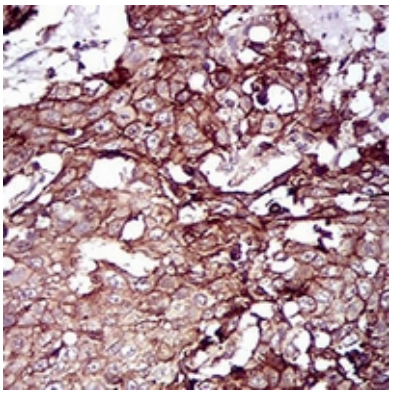
Tissue Location

Expressed throughout the basal and spinous layer of the epidermis with weak expression in the granular layer (at protein level) (PubMed:19717567). Expressed in skin and mucosa (at protein level) (PubMed:22294297, PubMed:30528827). Expressed throughout the esophageal mucosa (at protein level) (PubMed:24220297). Expressed in the basal layer of the outer root sheath of the telogen hair club, specifically at the cell membrane between the apex of the cells and the surrounding hair club (at protein level) (PubMed:9701552). Expression is less abundant between the lateral margins of the outer root sheath basal cells (at protein level) (PubMed:9701552). Also expressed in the tongue, tonsil and esophagus (PubMed:16740002)

Images

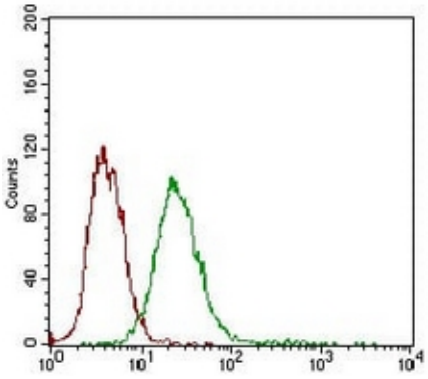


Western blot analysis of Desmoglein 3 expression in A431 (A) whole cell lysates. (Predicted band size: 108 kD; Observed band size: 108 kD)



Immunohistochemical analysis of Desmoglein 3 staining in human esophageal cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

Flow cytometric analysis of A431 cells using Anti-Desmoglein 3 Antibody (green) and negative control (red).



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