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Anti-Desmocollin-2/3 Antibody

Mouse Monoclonal Antibody
Catalog # AH13164

Product Information

Application	WB, IHC-P, IF, FC
Primary Accession	Q02487
Other Accession	95612
Reactivity	Human, Mouse, Rat
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse / IgG1, kappa
Clone Names	7G6
Calculated MW	99962

Additional Information

Gene ID	1824
Other Names	ARVD11; Cadherin family member 2; CDHF2; Desmocollin-2; Desmocollin-3; Desmosomal glycoprotein II and III; Desmosomal glycoprotein II; Desmosomal glycoprotein III; DG2; DGII/III; DSC2; DSC3
Application Note	Flow Cytometry (0.5-1ug/million cells); Immunofluorescence (1-2ug/ml); ,Western Blotting (0.5-1.0ug/ml); ,Immunohistology (Formalin-fixed) (1-2ug/ml for 30 minutes at RT),(Staining of formalin-fixed tissues requires boiling tissue sections in 10mM Tris with 1mM EDTA, pH 9.0, for 10-20 min followed by cooling at RT for 20 minutes),Optimal dilution for a specific application should be determined.
Format	200ug/ml of Ab purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0mg/ml.
Storage	Store at 2 to 8°C.Antibody is stable for 24 months.
Precautions	Anti-Desmocollin-2/3 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

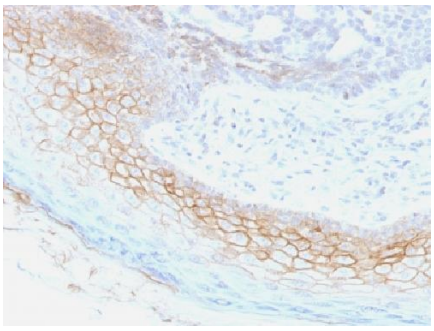
Name	DSC2 (HGNC:3036)
Synonyms	CDHF2, DSC3
Function	A component of desmosome cell-cell junctions which are required for

	positive regulation of cellular adhesion (PubMed:33596089). Promotes timely incorporation of DSG2 into desmosome intercellular junctions and promotes interaction of desmosome cell junctions with intermediate filament cytokeratin, via modulation of DSP phosphorylation (PubMed:33596089). Plays an important role in desmosome-mediated maintenance of intestinal epithelial cell intercellular adhesion strength and barrier function (PubMed:33596089). Positively regulates wound healing of intestinal mucosa via promotion of epithelial cell migration, and also plays a role in mechanotransduction of force between intestinal epithelial cells and extracellular matrix (PubMed:31967937). May contribute to epidermal cell positioning (stratification) by mediating differential adhesiveness between cells that express different isoforms. May promote p38MAPK signaling activation that facilitates keratinocyte migration (By similarity).
Cellular Location	Cell membrane; Single-pass type I membrane protein. Cell junction, desmosome
Tissue Location	Expressed at intercalated disks in the heart, where it is colocalized with CDH2 (at protein level) (PubMed:23863954, PubMed:33784018). Expressed in intestinal mucosal cells (at protein level) (PubMed:31967937).

Background

Desmosomes are intercellular adhering junctions that represent cell surface attachment sites for intermediate filament. The desmosome is subdivided into two regions. The plaque region lies adjacent to the plasma, and is believed to contain molecules that attach the intermediate filament cytoskeleton to the desmosome. The core region is composed of transmembrane glycoproteins that are thought to mediate cell-cell adhesion. Desmogleins and desmocollins are the main desmosomal transmembrane proteins. These desmosomal glycoproteins belong to the members of the cadherin family of adhesion molecules. Three different isoforms of both desmogleins and desmocollins have been identified, named as desmoglein 1-3 and desmocollins. Desmosomal cadherins showed differentiation-specific expression in the human epidermis, although the functional significance of this differential expression is not fully understood. Desmocollin-1 can be found in the upper layers. The expression of desmocollin-2 varies in the basal and suprabasal layers. And desmocollin-3 is expressed more evenly throughout the suprabasal layers.

Images



Formalin-fixed, paraffin-embedded human Skin stained with Desmocollin-2/3 Monoclonal Antibody (7G6).