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Anti-Desmoglein 2 Antibody
Catalog # ABO10877

Specification

Anti-Desmoglein 2 Antibody - Product Information

Application	**WB, IHC-P**
Primary Accession	Q14126
Host	**Rabbit**
Reactivity	**Human, Mouse, Rat**
Clonality	**Polyclonal**
Format	**Lyophilized**

Description
Rabbit IgG polyclonal antibody for Desmoglein-2(DSG2) detection. Tested with WB, IHC-P in Human;Mouse;Rat.

Reconstitution
Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-Desmoglein 2 Antibody - Additional Information

Gene ID 1829

Other Names
Desmoglein-2, Cadherin family member 5, HDGC, DSG2, CDHF5

Calculated MW
122294 MW KDa

Application Details
Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, Rat, Mouse, By Heat
Western blot, 0.1-0.5 µg/ml, Human, Rat, Mouse

Subcellular Localization
Cell membrane; Single-pass type I membrane protein. Cell junction, desmosome.

Tissue Specificity
All of the tissues tested and carcinomas.

Protein Name
Desmoglein-2

Contents
Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3.

Immunogen
A synthetic peptide corresponding to a sequence at the C-terminus of human Desmoglein 2(1104-1118aa STRVTKHSTVQHSYS), different from the related mouse and rat sequences by one amino acid.

Purification
Immunogen affinity purified.

Cross Reactivity
No cross reactivity with other proteins

Storage

At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.

Sequence Similarities
Contains 4 cadherin domains.

Anti-Desmoglein 2 Antibody - Protein Information

Name DSG2

Synonyms CDHF5

Function
A component of desmosome cell-cell junctions which are required for positive regulation of cellular adhesion (PubMed:38395410). Involved in the interaction of plaque proteins and intermediate filaments mediating cell-cell adhesion. Required for proliferation and viability of embryonic stem cells in the blastocyst, thereby crucial for progression of post-implantation embryonic development (By similarity). Maintains pluripotency by regulating epithelial to mesenchymal transition/mesenchymal to epithelial transition (EMT/MET) via interacting with and sequestering CTNNB1 to sites of cell-cell contact, thereby reducing translocation of CTNNB1 to the nucleus and subsequent transcription of CTNNB1/TCF-target genes (PubMed:29910125). Promotes pluripotency and the multi-lineage differentiation potential of hematopoietic stem cells (PubMed:27338829). Plays a role in endothelial cell sprouting and elongation via mediating the junctional-association of cortical actin fibers and CDH5 (PubMed:27338829). Plays a role in limiting inflammatory infiltration and the apoptotic response to injury in kidney tubular epithelial cells, potentially via its role in maintaining cell-cell adhesion and the epithelial barrier (PubMed:38395410).

Cellular Location
Cell membrane; Single-pass type I membrane protein. Cell junction, desmosome. Cytoplasm

Tissue Location
Expressed in undifferentiated pluripotent stem cells, expression decreases during differentiation (at protein level) (PubMed:29910125). Expressed in hematopoietic stem cells and circulating endothelial progenitor cells, expression decreases upon increasing cell lineage commitment (at protein level) (PubMed:27338829). Expressed on common myeloid progenitors, pro- myelocytes, pro-erythrocytes and B-cell linage progenitors (at protein level). Expression in mature cell types in the bone marrow and mature leukocyte populations is absent (PubMed:27338829). Expressed by foreskin fibroblasts, expression peaks during the early stage of differentiation reprogramming (at protein level) (PubMed:29910125) Expressed by endothelial cells in both arterioles and venules in the cervix (at protein level) (PubMed:27338829). Expressed in kidney tubular epithelial cells (PubMed:38395410)

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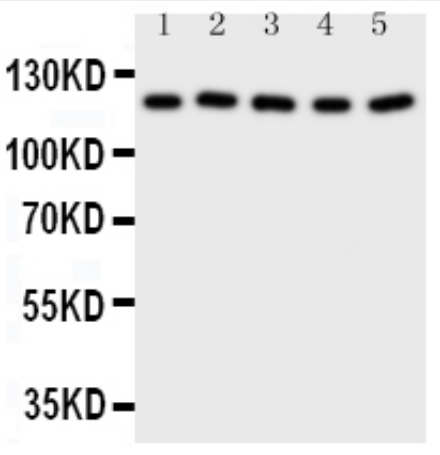
Anti-Desmoglein 2 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-Desmoglein 2 Antibody - Images



Anti-Desmoglein 2 antibody, ABO10877, Western blottingAll lanes: Anti Desmoglein 2 (ABO10877) at 0.5ug/mlLane 1: HT1080 Whole Cell Lysate at 40ugLane 2: HELA Whole Cell Lysate at 40ugLane 3: SW620 Whole Cell Lysate at 40ugLane 4: SCG Whole Cell Lysate at 40ugLane 5: COLO320 Whole Cell Lysate at 40ugPredicted bind size: 122KDObserved bind size: 122KD

Anti-Desmoglein 2 Antibody - Background

Desmoglein-2 is a protein that in humans is encoded by the DSG2 gene. These desmoglein gene family members are located in a cluster on chromosome 18. This second family member is expressed in colon, colon carcinoma, and other simple and stratified epithelial-derived cell lines. Mutations in DSG2 display a high degree of penetrance. Disease expression was of variable severity with LV involvement a prominent feature. The low prevalence of classical ECG changes highlights the need to expand current diagnostic criteria to take account of LV disease, childhood disease expression, and incomplete penetrance.