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BM5102 Monoclonal Antibody to Desmocollin-1 - Purified

Alternate names: CDHF1, Cadherin family member 1, DG2/DG3, DSC1, Desmosomal glycoprotein 2/3

Quantity: 50 µg

Background: Desmocollin 1 is a component of intercellular desmosome junctions. It is involved in the interaction of plaque proteins and intermediate filaments mediating cell-cell adhesion. It may contribute to epidermal cell positioning (stratification) by mediating differential adhesiveness between cells that express different isoforms. Desmocollin 1 is linked to the keratinization of epithelial tissues.

Uniprot ID: Q08554

NCBI: NP_004939.1

GeneID: 1823

Host / Isotype: Mouse / IgG1

Recommended Isotype Controls: SM10P (for use in human samples), AM03095PU-N

Clone: Dsc-1-U100

Immunogen: Synthetic peptide corresponding to sequence present within the intracellular part of Human Desmocollin 1
AA Sequence:
HQTLESVKGVGQGDTGRYATDWQC

Format:
State: Lyophilized purified IgG fraction
Purification: Affinity Chromatography on Protein A
Buffer System: PBS buffer, pH 7.4 containing 0.09% Sodium Azide as preservative and 0.5% BSA as stabilizer
Reconstitution: Restore in 1 ml dist. water.

Applications:
Imunoblotting (Western).
Immunohistochemistry on Frozen Sections:
For better resolution on **Frozen** Sections preincubation (directely after fixation) with 0.05-0.2% Triton X-100, for 5-10 min, depending on tissue type is recommended (see Ref.2). Without detergent pretreatment a cytoplasmic component might cross-react (e.g. in fibroblasts).
Immunohistochemistry on Paraffin-Embedded Sections (after microwave treatment):
A slight crossreactivity with a lymphocyte subpopulation is abolished by mild trypsinization after the microwave step.
Working Dilution: After reconstitution dilute further 1/10 in PBS (pH 7.4) for Immunohistochemistry.
Incubation Time: 1h at RT for Immunohistochemistry or overnight at 2-8°C.
Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity:

Reacts with 111 kD (form "a") and 103 kD (form "b") polypeptides (Desmocollin 1 splice forms, both at pI 5.2) from Human epidermal desmosomes.
Mab localizes Dsc1 present in
- suprabasal layers of interfollicular epidermis
- specific cell layers (e.g. in hair follicle root sheath)
- Hassall bodies (spheroidal formations of densely packed reticulum-derived cells in the thymus).

Species: Human.
Other species not tested.

Storage:

Stable for one year after reconstitution when stored at 2-8°C.
For extended storage keep in aliquots at -20°C.
Avoid repeated freeze-thaw cycles.
Shelf life: one year from despatch.

General Readings:

1. Nuber UA, Schäfer S, Stehr S, Rackwitz HR, Franke WW. Patterns of desmocollin synthesis in human epithelia: immunolocalization of desmocollins 1 and 3 in special epithelia and in cultured cells. Eur J Cell Biol. 1996 Sep;71(1):1-13. PubMed PMID: 8884173.
2. Schäfer S, Stumpp S, Franke WW. Immunological identification and characterization of the desmosomal cadherin Dsg2 in coupled and uncoupled epithelial cells and in human tissues. Differentiation. 1996 May;60(2):99-108. PubMed PMID: 8641550.
3. Moll I, Houdek P, Schäfer S, Nuber U, Moll R. Diversity of desmosomal proteins in regenerating epidermis: immunohistochemical study using a human skin organ culture model. Arch Dermatol Res. 1999 Jul-Aug;291(7-8):437-46. PubMed PMID: 10482015.
4. Kurzen H, Moll I, Moll R, Schäfer S, Simics E, Amagai M, et al. Compositionally different desmosomes in the various compartments of the human hair follicle. Differentiation. 1998 Sep;63(5):295-304. PubMed PMID: 9810708.
5. Akat K, Mennel HD, Kremer P, Gassler N, Bleck CK, Kartenbeck J. Molecular characterization of desmosomes in meningiomas and arachnoidal tissue. Acta Neuropathol. 2003 Oct;106(4):337-47. Epub 2003 Jul 5. PubMed PMID: 12845453.