

# DSC2 (D-13): sc-34311

## BACKGROUND

Desmogleins are type I membrane proteins that are important for cell adhesion and are expressed in great abundance at the desmosomes, which are adhesive cell junctions. Desmogleins belong to the cadherin family and consist of dsg1, dsg2, dsg3 and dsg4. The desmosomal cadherin desmocollins DSC1 and DSC3 are also type I membrane proteins that may contribute to epidermal cell positioning by mediating differential adhesiveness between cells that express different isoforms. Alternative splicing gives rise to isoforms A and B of DSC1 and DSC3, which differ in their C-termini. DSC2 exhibits homophilic interactions in solution, and forms heterophilic interactions with dsg2. DSC2 and DSC1 are present at high levels in the suprabasal skin layers. DSC2 protein is predominantly localized to specialized adhesion junctions between the cortex and the medulla.

## REFERENCES

1. Syed, S.E., Trinaman, B., Martin, S., Major, S., Hutchinson, J., Magee and A.I. 2002. Molecular interactions between desmosomal cadherins. *Biochem. J.* 362: 317-327.
2. Kljuic, A., Bauer, R.C. and Christiano, A.M. 2004. Genomic organization of mouse desmocollin genes reveals evolutionary conservation. *DNA Seq.* 15: 148-152.
3. Duhieu, S., Laperdrix, C., Hashimoto, T., Le Bitoux, M.A. and Haftek, M. 2005. Desmosome-binding antibody KM48 recognises an extracellular antigen different from desmosomal cadherins dsg1-3 and DSC1-3. *Eur. J. Dermatol.* 15: 80-84.
4. Johns, S.A., Soullier, S., Rashbass, P. and Cunliffe, V.T. 2005. Foxn1 is required for tissue assembly and desmosomal cadherin expression in the hair shaft. *Dev. Dyn.* 232: 1062-1068.

## CHROMOSOMAL LOCATION

Genetic locus: DSC2 (human) mapping to 18q12.1; Dsc2 (mouse) mapping to 18 A2.

## SOURCE

DSC2 (D-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of DSC2 of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-34311 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## APPLICATIONS

DSC2 (D-13) is recommended for detection of Desmocollin 2A and 2B of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

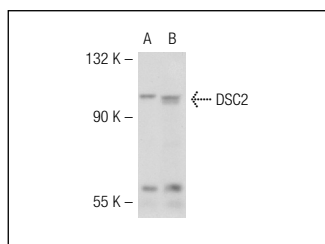
Suitable for use as control antibody for DSC2 siRNA (h): sc-45373, DSC2 siRNA (m): sc-45374, DSC2 shRNA Plasmid (h): sc-45373-SH, DSC2 shRNA Plasmid (m): sc-45374-SH, DSC2 shRNA (h) Lentiviral Particles: sc-45373-V and DSC2 shRNA (m) Lentiviral Particles: sc-45374-V.

Molecular Weight of DSC2: 100 kDa.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



DSC2 (D-13): sc-34311. Western blot analysis of DSC2 expression in 293T (A) and NTERA-2 cl.D1 (B) whole cell lysates.

## PROTOCOLS

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