



dsg4 (D-16): sc-28069

BACKGROUND

Desmoglein proteins are cadherin-type cell adhesion molecules. Desmoglein 4 (dsg4) shares 41% identity with human desmoglein 1, 37% with human desmoglein 2 and 50% with human desmoglein 3. A type I membrane protein of the cadherin protein family, dsg4 is expressed in salivary gland, suprabasal epidermis, hair follicle, testis, prostate and skin. In the hair follicle, dsg4 is an important mediator of keratinocyte cell adhesion and coordinates the transition from proliferation to differentiation. The human DSG4 gene is composed of 16 exons spanning approximately 37 kb of 18q12 and is situated between DSG1 and DSG3.

REFERENCES

1. Kljuic, A., Bazzi, H., Sundberg, J.P., Martinez-Mir, A., O'Shaughnessy, R., Mahoney, M.G., Levy, M., Montagutelli, X., Ahmad, W., Aita, V.M., Gordon, D., Uitto, J., Whiting, D., Ott, J., Fischer, S., Gilliam, T.C., Jahoda, C.A., Morris, R.J., Panteleyev, A.A., Nguyen, V.T., and Christiano, A.M. 2003. Desmoglein 4 in hair follicle differentiation and epidermal adhesion: evidence from inherited hypotrichosis and acquired pemphigus vulgaris. *Cell* 113: 249-260.
2. Whittock, N.V. and Bower, C. 2003. Genetic evidence for a novel human desmosomal cadherin, desmoglein 4. *J. Invest. Dermatol.* 120: 523-530.
3. Meyer, B., et al. 2004. A spontaneous mutation in the desmoglein 4 gene underlies hypotrichosis in a new lanceolate hair rat model. *Differentiation* 72: 541-547.
4. Nagasaka, T., et al. 2004. Defining the pathogenic involvement of desmoglein 4 in pemphigus and staphylococcal scalded skin syndrome. *J Clin Invest* 114: 1484-1492.
5. <http://harvester.embl.de/harvester/Q6Y9/Q6Y9L9.htm>

SOURCE

dsg4 (D-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of dsg4 of mouse 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-28069 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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

APPLICATIONS

dsg4 (D-16) is recommended for detection of dsg4 of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 dsg4 siRNA (m): sc-44764.

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) 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.