

dsg4 (6E7): sc-517109

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 18q12.1 and is situated between DSG1 and DSG3.

REFERENCES

- Whittock, N.V. and Bower, C. 2003. Genetic evidence for a novel human desmosomal cadherin, desmoglein 4. *J. Invest. Dermatol.* 120: 523-530.
- Kljuic, A., et al. 2003. Desmoglein 4 in hair follicle differentiation and epidermal adhesion: evidence from inherited hypotrichosis and acquired pemphigus vulgaris. *Cell* 113: 249-260.
- 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.
- 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.

CHROMOSOMAL LOCATION

Genetic locus: DSG4 (human) mapping to 18q12.1.

SOURCE

dsg4 (6E7) is a mouse monoclonal antibody raised against amino acids 531-630 representing partial length dsg4 of human origin.

PRODUCT

Each vial contains 100 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

RESEARCH USE

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

APPLICATIONS

dsg4 (6E7) is recommended for detection of dsg4 of 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for dsg4 siRNA (h): sc-44763, dsg4 shRNA Plasmid (h): sc-44763-SH and dsg4 shRNA (h) Lentiviral Particles: sc-44763-V.

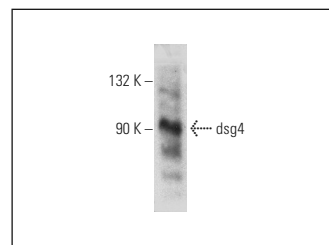
Molecular Weight of dsg4: 99 kDa.

Positive Controls: Hs 181 Tes whole cell lysate: sc-364779.

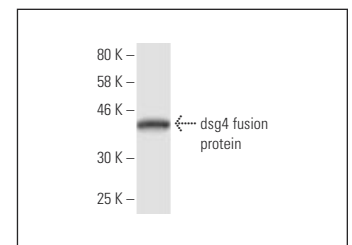
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



dsg4 (6E7): sc-517109. Western blot analysis of dsg4 expression in Hs 181 Tes whole cell lysate.



dsg4 (6E7): sc-517109. Western blot analysis of human recombinant dsg4 fusion protein.

STORAGE

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

PROTOCOLS

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