

BPAG1 (H-80): sc-28544

BACKGROUND

As basal cells of stratified squamous epithelia begin to migrate in response to wound healing, they lose their cell-substrate adhesion junctions, the hemidesmosomes. The hemidesmosome is an adhesion structure of the epidermal-dermal junction in keratinocytes. When keratinocytes migrate laterally or upward to differentiate they must control the formation and disintegration of the hemidesmosomes. The bullous pemphigoid antigen BPAG1 is a hemidesmosomal protein of the cutaneous basement membrane zone. The primary sequence deduced from full-length human cDNAs predicts that this molecule consists of a central rod region and flanking globular domains. A neuronal isoform, BPAG1n3 is the result of differential splicing of BPAG1. BPAG1n3 is distinguished by its initial 32 amino acid residues and by the absence of the amino-terminal half of the Actin-binding domain.

REFERENCES

1. Kitajima, Y., Owaribe, K., Nishizawa, Y., Jokura, Y. and Yaoita, H. 1992. Phorbol ester- and calcium-induced reorganization of 180 kDa bullous pemphigoid antigen on the ventral surface of cultured human keratinocytes as studied by immunofluorescence and immunoelectron microscopy. *Exp. Cell Res.* 203: 17-24.
2. Gipson, I.K., Spurr-Michaud, S., Tisdale, A., Elwell, J. and Stepp, M.A. 1993. Redistribution of the hemidesmosome components $\alpha 6/\beta 4$ Integrin and bullous pemphigoid antigens during epithelial wound healing. *Exp. Cell Res.* 207: 86-98.
3. Sawamura, D., Sato, T., Kon, A., Harada, K., Nomura, K., Hashimoto, I., Tamai, K. and Uitto, J. 1994. Mouse 230 kDa bullous pemphigoid antigen gene: structural and functional characterization of the 5'-flanking region and interspecies conservation of the deduced amino-terminal peptide sequence of the protein. *J. Invest. Dermatol.* 103: 651-655.
4. Kitajima, Y., Nojiri, M., Yamada, T., Hirako, Y. and Owaribe, K. 1998. Internalization of the 180 kDa bullous pemphigoid antigen as immune complexes in basal keratinocytes: an important early event in blister formation in bullous pemphigoid. *Br. J. Dermatol.* 138: 71-76.
5. Yang, Y., Bauer, C., Strasser, G., Wollman, R., Julien, J.P. and Fuchs, E. 1999. Integrators of the cytoskeleton that stabilize microtubules. *Cell* 98: 229-238.

CHROMOSOMAL LOCATION

Genetic locus: DST (human) mapping to 6p12.1; Dst (mouse) mapping to 1 B.

SOURCE

BPAG1 (H-80) is a rabbit polyclonal antibody raised against amino acids 3135-3214 mapping at the C-terminus of BPAG1 of human origin.

PRODUCT

Each vial contains 200 μ g IgG 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

BPAG1 (H-80) is recommended for detection of BPAG1 isoforms 1-5 and 8 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

BPAG1 (H-80) is also recommended for detection of BPAG1 isoforms 1-5 and 8 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for BPAG1 siRNA (h): sc-43269, BPAG1 siRNA (m): sc-43270, BPAG1 shRNA Plasmid (h): sc-43269-SH, BPAG1 shRNA Plasmid (m): sc-43270-SH, BPAG1 shRNA (h) Lentiviral Particles: sc-43269-V and BPAG1 shRNA (m) Lentiviral Particles: sc-43270-V.

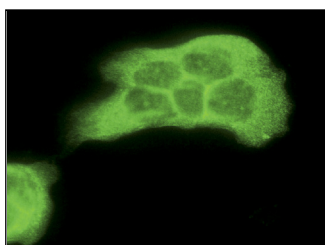
Molecular Weight of BPAG1: 230 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201 or rat brain extract: sc-2392.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker[™] compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz[™] Mounting Medium: sc-24941.

DATA



BPAG1 (H-80): sc-28544. Immunofluorescence staining of methanol-fixed A-431 cells showing cytoskeletal localization.

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 or our catalog for detailed protocols and support products.