

BPAG1 (E-14): sc-13776

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., et al. 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., et al. 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., et al. 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., et al. 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., et al. 1999. Integrators of the cytoskeleton that stabilize microtubules. *Cell* 98: 229-238.

CHROMOSOMAL LOCATION

Genetic locus: BPAG1 (human) mapping to 6p12.1; Bpag1 (mouse) mapping to 1 B.

SOURCE

BPAG1 (E-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near 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.

Blocking peptide available for competition studies, sc-13776 P, (100 μ g 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.

APPLICATIONS

BPAG1 (E-14) 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).

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.

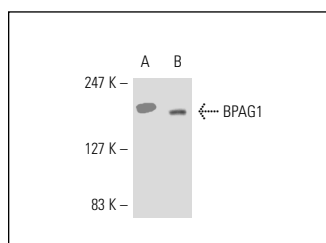
Molecular Weight of BPAG1: 230 kDa.

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

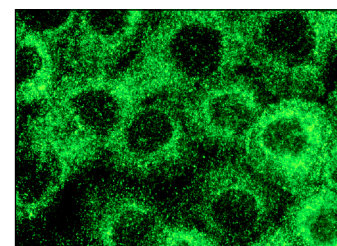
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use 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



BPAG1 (E-14): sc-13776. Western blot analysis of BPAG1 expression in A-431 whole cell lysate (A) and rat brain tissue extract (B).



BPAG1 (E-14): sc-13776. Immunofluorescence staining of methanol-fixed A-431 cells showing cytoskeletal localization.

SELECT PRODUCT CITATIONS

1. Yamamoto, C., et al. 2008. Vitamin D₃ inhibits expression of bullous pemphigoid antigen 1 through post-transcriptional mechanism without new protein synthesis. *J. Dermatol. Sci.* 50: 155-158.

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.