

BPAG1 (1B10): sc-293499

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

SOURCE

BPAG1 (1B10) is a mouse monoclonal antibody raised against amino acids 401-500 representing partial length BPAG1 of human origin.

PRODUCT

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

STORAGE

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

APPLICATIONS

BPAG1 (1B10) is recommended for detection of BPAG1 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.

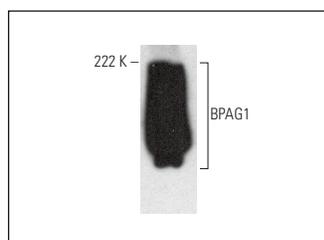
Molecular Weight of BPAG1: 230 kDa.

Positive Controls: human skeletal muscle extract: sc-363776.

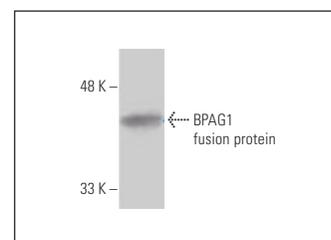
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



BPAG1 (1B10): sc-293499. Western blot analysis of BPAG1 expression in human skeletal muscle tissue extract.



BPAG1 (1B10): sc-293499. Western blot analysis of human recombinant BPAG1 fusion protein.

RESEARCH USE

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

PROTOCOLS

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