

periplakin (C-20): sc-16754

BACKGROUND

Paraneoplastic pemphigus (PNP) is an autoimmune blistering disease that is associated with underlying neoplasms. PNP sera reacts with multiple plakin family proteins, among which only envoplakin and periplakin are constantly detected. Periplakin, a membrane-associated precursor of the epidermal cornified envelope and desmosomes, is a member of the plakin family of proteins. The periplakin gene PPL is mapped to human chromosome 16p13.3, and its promoter contains multiple AP2 sites and an SP1 site. Periplakin localizes to desmosomes, the interdesmosomal plasma membrane and intermediate filaments. The periplakin rod domain is necessary for the redistribution of envoplakin to desmosomes and the cytoskeleton by heterodimerization. The periplakin linker domain is required for intermediate filament association. The N-terminus of periplakin accumulates at the cell surface of microvilli in association with cortical actin. Envoplakin and periplakin localize independently to desmosomes, and the distribution of envoplakin at the interdesmosomal plasma membrane depends on heterodimerization with periplakin. The N-terminus of periplakin, therefore, plays an important role in forming the scaffold on which the cornified envelope is assembled.

CHROMOSOMAL LOCATION

Genetic locus: PPL (human) mapping to 16p13.3; Ppl (mouse) mapping to 16 A1.

SOURCE

periplakin (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of periplakin of human 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-16754 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

periplakin (C-20) is recommended for detection of periplakin of mouse, rat and 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)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

periplakin (C-20) is also recommended for detection of periplakin in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for periplakin siRNA (h): sc-43414, periplakin siRNA (m): sc-43415, periplakin shRNA Plasmid (h): sc-43414-SH, periplakin shRNA Plasmid (m): sc-43415-SH, periplakin shRNA (h) Lentiviral Particles: sc-43414-V and periplakin shRNA (m) Lentiviral Particles: sc-43415-V.

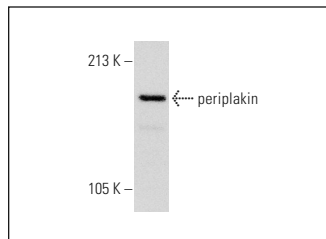
Molecular Weight of periplakin: 190 kDa.

Positive Controls: human skin extract: sc-363777.

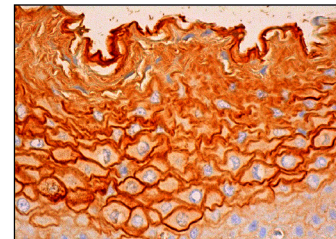
STORAGE

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

DATA



periplakin (C-20): sc-16754. Western blot analysis of periplakin expression in human skin tissue extract.



periplakin (C-20): sc-16754. Immunoperoxidase staining of formalin fixed, paraffin-embedded human esophagus tissue showing membrane and cytoplasmic staining of squamous epithelial cells.

SELECT PRODUCT CITATIONS

1. Cozzani, E., et al. 2007. Pemphigus vegetans Neumann type with anti-desmoglein and anti-periplakin autoantibodies. *Eur. J. Dermatol.* 17: 530-533.
2. Wang, J., et al. 2009. Differential gene expression in normal esophagus and Barrett's esophagus. *J. Gastroenterol.* 44: 897-911.
3. Grootenboer-Mignot, S., et al. 2009. Place of human amniotic membrane immunoblotting in the diagnosis of autoimmune bullous dermatoses. *Br. J. Dermatol.* 162: 743-750.
4. Taille, C., et al. 2011. Identification of periplakin as a new target for autoreactivity in idiopathic pulmonary fibrosis. *Am. J. Respir. Crit. Care Med.* 183: 759-766.
5. Poot, A.M., et al. 2013. Laboratory diagnosis of paraneoplastic pemphigus. *Br. J. Dermatol.* 169: 1016-1024.

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.



MONOS
Satisfaction
Guaranteed

Try **periplakin (G-1): sc-365530**, our highly recommended monoclonal alternative to periplakin (C-20).