

# envoplakin (M-20): sc-16751

## BACKGROUND

Paraneoplastic pemphigus (PNP) is an autoimmune blistering disease that is associated with underlying neoplasms. PNP sera react with multiple plakin family proteins, among which only envoplakin and periplakin are constantly detected. Envoplakin, a membrane-associated precursor of the epidermal cornified envelope and desmosomes, is a member of the plakin family of proteins. Envoplakin is expressed in epidermal and esophageal keratinocytes and nonepithelial stratified squamous epithelia, but not in simple epithelia or nonepithelial cells. Envoplakin co-localizes with desmoplakin at desmosomes and on keratin filaments throughout the differentiated layers of the epidermis, but mainly accumulates in nuclear and cytoplasmic aggregates with associated intermediate filaments. The envoplakin rod domain is required for aggregation and the linker domain is required for intermediate filament association. The distribution of envoplakin at the interdesmosomal plasma membrane depends on heterodimerization with periplakin.

## REFERENCES

1. Ruhrberg, C., et al. 1996. Chromosomal localization of the human envoplakin gene (EVPL) to the region of the tylosis oesophageal cancer gene (TOCG) on 17q25. *Genomics* 37: 381-385.
2. Ruhrberg, C., et al. 1996. Envoplakin, a novel precursor of the cornified envelope that has homology to desmoplakin. *J. Cell Biol.* 134: 715-29.

## CHROMOSOMAL LOCATION

Genetic locus: EVPL (human) mapping to 17q25.1; Evpl (mouse) mapping to 11 E2.

## SOURCE

envoplakin (M-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of envoplakin of mouse 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-16751 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

envoplakin (M-20) is recommended for detection of envoplakin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

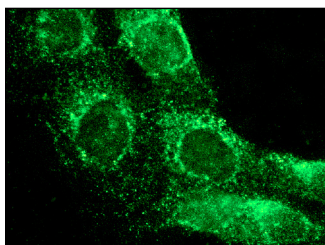
Suitable for use as control antibody for envoplakin siRNA (h): sc-43412, envoplakin siRNA (m): sc-43413, envoplakin shRNA Plasmid (h): sc-43412-SH, envoplakin shRNA Plasmid (m): sc-43413-SH, envoplakin shRNA (h) Lentiviral Particles: sc-43412-V and envoplakin shRNA (m) Lentiviral Particles: sc-43413-V.

Molecular Weight of envoplakin: 210 kDa.

## 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) 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



envoplakin (M-20): sc-16751. Immunofluorescence staining of methanol-fixed A-431 cells showing cytoskeletal localization.

## SELECT PRODUCT CITATIONS

1. 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.

## STORAGE

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

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.


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Try **envoplakin (F-4): sc-137033** or **envoplakin (CRENV-1): sc-53276**, our highly recommended monoclonal alternatives to envoplakin (M-20).