

# Perp (FL-193): sc-67184

## BACKGROUND

The Perp protein, also known as p53 (apoptosis) effector related to PMP22, keratinocytes-associated protein 1 (KCP 1), p53-induced protein PIGPC1 or transmembrane protein THW, contains 193 amino acids and has 4 transmembrane domains, 2 extracellular domains and 3 cytoplasmic domains. Northern blot analysis using a multiple tissue array demonstrates that Perp is predominantly expressed in esophagus and trachea tissues. Perp is required for the integrity of the stratified epithelia defined by p63 (a tumor suppressor gene); expression of Perp in these structures is contingent on the presence of p63. The position of Perp downstream of p63 and p53, as well as its essential role in regular desmosome function, suggest that it, like other adhesion proteins, may be a target for mutation in human blistering diseases or cancer. Furthermore, research demonstrates that the downregulation of Perp correlates with meta-static capacity of human melanoma cell lines, indicating that Perp may be a tumor suppressor.

## REFERENCES

- Hilbrandt, T., et al. 2000. Identification of THW, a putative new tumor suppressor gene. *Anticancer Res.* 20: 2801-2809.
- Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 609301. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Ihrie, R.A., et al. 2004. Perp-etrating p53-dependent apoptosis. *Cell Cycle* 3: 267-269.
- Nowak, M., et al. 2004. Perp is required for tissue-specific cell survival during zebrafish development. *Cell Death Differ.* 12: 52-64.
- Ihrie, R.A., et al. 2005. A new Perp in the lineup: linking p63 and desmosomal adhesion. *Cell Cycle* 4: 873-876.
- Ceballos, E., et al. 2005. Inhibitory effect of c-Myc on p53-induced apoptosis in leukemia cells. Microarray analysis reveals defective induction of p53 target genes and upregulation of chaperone genes. *Oncogene* 24: 4559-4571.
- Marques, M.R., et al. 2005. Mice lacking the p53/p63 target gene Perp are resistant to papilloma development. *Cancer Res.* 65: 6551-6556.
- Ihrie, R.A., et al. 2005. Perp is a p63-regulated gene essential for epithelial integrity. *Cell* 120: 843-856.

## CHROMOSOMAL LOCATION

Genetic locus: PERP (human) mapping to 6q23.3; Perp (mouse) mapping to 10 A3.

## SOURCE

Perp (FL-193) is a rabbit polyclonal antibody raised against amino acids 1-193 representing full length Perp 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.

## APPLICATIONS

Perp (FL-193) is recommended for detection of Perp 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Perp (FL-193) is also recommended for detection of Perp in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Perp siRNA (h): sc-61326, Perp siRNA (m): sc-61327, Perp shRNA Plasmid (h): sc-61326-SH, Perp shRNA Plasmid (m): sc-61327-SH, Perp shRNA (h) Lentiviral Particles: sc-61326-V and Perp shRNA (m) Lentiviral Particles: sc-61327-V.

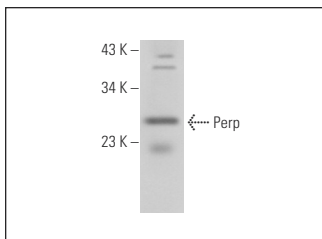
Molecular Weight of Perp: 22 kDa.

Positive Controls: human skin extract: sc-363777.

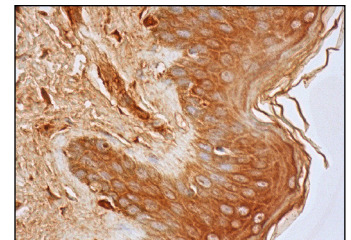
## RECOMMENDED SECONDARY REAGENTS

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



Perp (FL-193): sc-67184. Western blot analysis of Perp expression in human skin tissue extract.



Perp (FL-193): sc-67184. Immunoperoxidase staining of formalin fixed, paraffin-embedded human skin tissue showing cytoplasmic staining of keratinocytes, Langerhans and melanocytes.

## 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.