

## PL6 (C-17): sc-99595

### BACKGROUND

Transmembrane proteins contain transmembrane domains that are usually characterized by  $\alpha$ -helical structures. Transmembrane proteins exist as thermodynamically stable hetero- and homodimers that interact with the lipid bilayer and are involved in both material exchange and communication between the cell and the environment. PL6, also referred to as TMEM115 (transmembrane protein 115) or PP6 (placental protein 6), is a 351 amino acid multi-pass membrane protein that is highly expressed in kidney and skeletal muscle with lower levels of expression detected in liver, placenta, pancreas, lung, heart and brain. PL6 contains one phosphoserine residue and several transmembrane domains, suggesting that it may participate in protein exchange and signaling events between cells.

### REFERENCES

1. Popot, J.L. and Engelman, D.M. 1990. Membrane protein folding and oligomerization: the two-stage model. *Biochemistry* 29: 4031-4037.
2. Adamian, L. and Liang, J. 2001. Helix-helix packing and interfacial pairwise interactions of residues in membrane proteins. *J. Mol. Biol.* 311: 891-907.
3. Engelman, D.M., Chen, Y., Chin, C.N., Curran, A.R., Dixon, A.M., Dupuy, A.D., Lee, A.S., Lehnert, U., Matthews, E.E., Reshetnyak, Y.K., Senes, A. and Popot, J.L. 2003. Membrane protein folding: beyond the two stage model. *FEBS Lett.* 555: 122-125.
4. Stevens, T.J., Mizuguchi, K. and Arkin, I.T. 2004. Distinct protein interfaces in transmembrane domains suggest an *in vivo* folding model. *Protein Sci.* 13: 3028-3037.
5. Freeman-Cook, L.L. and Dimaio, D. 2005. Modulation of cell function by small transmembrane proteins modeled on the bovine papillomavirus E5 protein. *Oncogene* 24: 7756-7762.
6. Cao, B., Porollo, A., Adamczak, R., Jarrell, M. and Meller, J. 2006. Enhanced recognition of protein transmembrane domains with prediction-based structural profiles. *Bioinformatics* 22: 303-309.
7. SWISS-PROT/TrEMBL (Q12893). World Wide Web URL: <http://www.expasy.ch/sprot/sprot-top.html>

### CHROMOSOMAL LOCATION

Genetic locus: TMEM115 (human) mapping to 3p21.31.

### SOURCE

PL6 (C-17) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the C-terminus of PL6 of human origin.

### STORAGE

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

### PROTOCOLS

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

### PRODUCT

Each vial contains 100  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-99595 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### APPLICATIONS

PL6 (C-17) is recommended for detection of PL6 of 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).

PL6 (C-17) is also recommended for detection of PL6 in additional species, including canine and bovine.

Suitable for use as control antibody for PL6 siRNA (h): sc-78005, PL6 shRNA Plasmid (h): sc-78005-SH and PL6 shRNA (h) Lentiviral Particles: sc-78005-V.

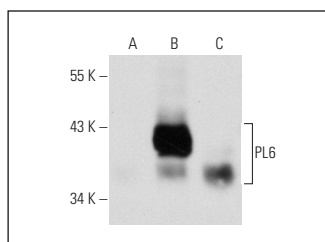
Molecular Weight of PL6: 38 kDa.

Positive Controls: PL6 (h): 293T Lysate: sc-173883, Hep G2 cell lysate: sc-2227 or A549 cell lysate: sc-2413.

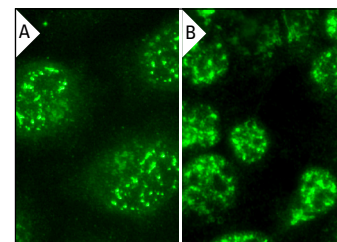
### RECOMMENDED SECONDARY REAGENTS

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) 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



PL6 (C-17): sc-99595. Western blot analysis of PL6 expression in non-transfected 293T: sc-117752 (A), human PL6 transfected 293T: sc-173883 (B) and Hep G2 (C) whole cell lysates.



PL6 (C-17): sc-99595. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear localization (A). Immunofluorescence staining of formalin-fixed Hep G2 cells showing nuclear localization (B).

### RESEARCH USE

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