

## Phemx (S-18): sc-54952

### BACKGROUND

Phemx (pan-hematopoietic expression protein), also known as PHMX, TSPAN32 (tetraspanin-32) or TSSC6 (tumor-suppressing subtransferable candidate 6), is a member of the tetraspanin (TM4SF) family of proteins that may be involved in transmembrane signal transduction, regulation of cell proliferation, differentiation and motility. Phemx is a multi-pass membrane protein containing intracellular N- and C-terminal domains, four transmembrane domains and two extracellular loops. It is ubiquitously expressed from early embryogenesis through adulthood. Phemx exhibits predominant expression in hematopoietic tissues suggesting a role in hematopoietic-cell function. In association with the Integrin  $\alpha$ IIb/Integrin  $\beta$ 3 complex, Phemx functions to stabilize arterial thrombi in platelets and regulate "outside-in" signaling. This interaction may be important in the process of wound healing. The gene encoding Phemx is located in an important tumor-suppressor gene region that has been associated with Beckwith-Wiedemann syndrome as well as a variety of cancers.

### REFERENCES

1. Lee, M.P., Brandenburg, S., Landes, G.M., Adams, M., Miller, G. and Feinberg, A.P. 1999. Two novel genes in the center of the 11p15 imprinted domain escape genomic imprinting. *Hum. Mol. Genet.* 8: 683-690.
2. Nicholson, R.H., Pantano, S., Eliason, J.F., Galy, A., Weiler, S., Kaplan, J., Hughes, M.R. and Ko, M.S. 2000. Phemx, a novel mouse gene expressed in hematopoietic cells maps to the imprinted cluster on distal chromosome 7. *Genomics* 68: 13-21.
3. Paulsen, M., El-Maarri, O., Engemann, S., Strödicke, M., Franck, O., Davies, K., Reinhardt, R., Reik, W. and Walter, J. 2000. Sequence conservation and variability of imprinting in the Beckwith-Wiedemann syndrome gene cluster in human and mouse. *Hum. Mol. Genet.* 9: 1829-1841.
4. Harada, Y., Harada, H., Downing, J.R. and Kimura, A. 2001. A hematopoietic-specific transmembrane protein, Art-1, is possibly regulated by AML1. *Biochem. Biophys. Res. Commun.* 284: 714-722.
5. Robb, L., Tarrant, J., Groom, J., Ibrahim, M., Li, R., Borobakas, B. and Wright, M.D. 2001. Molecular characterisation of mouse and human TSSC6: evidence that TSSC6 is a genuine member of the tetraspanin superfamily and is expressed specifically in haematopoietic organs. *Biochim. Biophys. Acta* 1522: 31-41.
6. Tarrant, J.M., Groom, J., Metcalf, D., Li, R., Borobakas, B., Wright, M.D., Tarlinton, D. and Robb, L. 2002. The absence of Tssc6, a member of the tetraspanin superfamily, does not affect lymphoid development but enhances *in vitro* T cell proliferative responses. *Mol. Cell. Biol.* 22: 5006-5018.

### CHROMOSOMAL LOCATION

Genetic locus: TSPAN32 (human) mapping to 11p15.5.

### SOURCE

Phemx (S-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Phemx of human origin.

### PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-54952 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### APPLICATIONS

Phemx (S-18) is recommended for detection of Phemx 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).

Suitable for use as control antibody for Phemx siRNA (h): sc-62798, Phemx shRNA Plasmid (h): sc-62798-SH and Phemx shRNA (h) Lentiviral Particles: sc-62798-V.

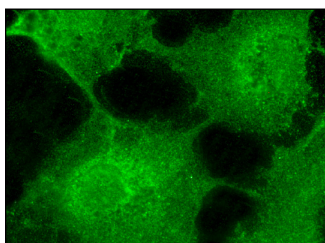
Molecular Weight of Phemx: 35 kDa.

Positive Controls: HeLa nuclear extract: sc-2120.

### 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



Phemx (S-18): sc-54952. Immunofluorescence staining of formalin-fixed Hep G2 cells showing membrane localization.

### 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.