**BACKGROUND**

Plfr (Proliferin-related protein), also known as PRP, PLF-RP or Prolactin-7D1, is a glycoprotein belonging to the somatotropin/prolactin family of growth hormones. Plfr shares significant homology with all members of this family. Plfr is a potent placental antiangiogenic hormone secreted during mid to late gestation (peaking at day 12) in response to several angiogenic factors. In contrast to Proliferin, a promoter of placental neovascularization, Plfr may function to limit endothelial invasiveness and regulate the cessation of placental neovascularization. Plfr is produced by muring giant cells and sponggiotrophoblasts. This localization suggests that Plfr may act to generate a barrier zone, preventing the criss-crossing of maternal blood vessels extending from the uterus and fetal vessels extending from the placenta. Although a human Plfr has not been characterized, the mouse hormone can induce antiangiogenic effects on human endothelial cells. This suggests that the Plfr signaling pathway is conserved between mouse and human.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: Prl7d1 (mouse) mapping to 13 A3.1.

**SOURCE**

Plfr (M-121) is a rabbit polyclonal antibody raised against amino acids 124-244 mapping at the C-terminus of Plfr 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.

**APPLICATIONS**

Plfr (M-121) is recommended for detection of Plfr of mouse and rat 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).

Suitable for use as control antibody for Plfr siRNA (m): sc-106420, Plfr shRNA Plasmid (m): sc-106420-SH and Plfr shRNA (m) Lentiviral Particles: sc-106420-V.

Molecular Weight of Plfr: 24 kDa.

**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-2035 (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) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

**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.