

## PSG5 (C-14): sc-132413

### BACKGROUND

Pregnancy specific  $\beta$ -1-glycoprotein 5 (PSG5), also designated fetal liver non-specific cross-reactive antigen 3, is a member of the PSG family, a group of closely related secreted glycoproteins that are highly expressed in fetal placental syncytiotrophoblast cells. The members of the PSG protein family all have a characteristic N-terminal domain that is homologous to the immunoglobulin variable region. PSGs become detectable in serum during the first two to three weeks of pregnancy and increase as the pregnancy progresses, eventually representing the most abundant fetal protein in the maternal blood at term. PSGs function to stimulate secretion of TH2-type cytokines from monocytes, and they may also modulate the maternal immune system during pregnancy, thereby protecting the semi-allotypic fetus from rejection. PSGs are commonly expressed in trophoblast tumors. Eleven human PSG proteins (PSG1-PSG11) have been described.

### REFERENCES

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3. Chan, W.Y., et al. 1991. Characterization of new members of the pregnancy-specific  $\beta$  1-glycoprotein family. *Mol. Cell. Biochem.* 106: 161-170.
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5. Bersinger, N.A., et al. 1998. Serum pregnancy-specific  $\beta$ 1-glycoprotein before embryo transfer is related to endometrial thickness and to outcome prognosis in women undergoing *in vitro* fertilization treatment. *Hum. Reprod.* 13: 1962-1967.
6. Panzetta-Dutari, G.M., et al. 2000. Transcription of genes encoding pregnancy-specific glycoproteins is regulated by negative promoter-selective elements. *Biochem. J.* 350: 511-519.
7. Nores, R., et al. 2004. Transcriptional control of the human pregnancy-specific glycoprotein 5 gene is dependent on two GT-boxes recognized by the ubiquitous specificity protein 1 (Sp1) transcription factor. *Placenta* 25: 9-19.
8. McLellan, A.S., et al. 2005. Conservation of pregnancy-specific glycoprotein (PSG) N domains following independent expansions of the gene families in rodents and primates. *BMC Evol. Biol.* 5: 39.
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### CHROMOSOMAL LOCATION

Genetic locus: PSG5 (human) mapping to 19q13.31.

### SOURCE

PSG5 (C-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of PSG5 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-132413 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### APPLICATIONS

PSG5 (C-14) is recommended for detection of PSG5 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); may cross-react with PSG3.

Molecular Weight of PSG5: 38 kDa.

Positive Controls: human placenta tissue extract.

### 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.

### 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.