

PSG2 (C-12): sc-169061

BACKGROUND

The pregnancy-specific glycoproteins (PSGs) are a group of closely related secreted glycoproteins that are highly expressed in fetal placental syncytiotrophoblast cells. Members of the PSG protein family share 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-allopathic fetus from rejection. Eleven human PSG proteins (PSG1-PSG11) have been described. PSG2 (pregnancy specific β -1-glycoprotein 2), also known as pregnancy-specific β -1 glycoprotein E, CEA, PSG or PSGGB, is a 335 amino acid secreted protein encoded by a gene that maps to human chromosome 19q13.31.

REFERENCES

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3. Leslie, K.K., et al. 1990. Linkage of two human pregnancy-specific β 1-glycoprotein genes: one is associated with hydatidiform mole. *Proc. Natl. Acad. Sci. USA* 87: 5822-5826.
4. Tynan, K., et al. 1992. Assembly and analysis of cosmid contigs in the CEA-gene family region of human chromosome 19. *Nucleic Acids Res.* 20: 1629-1636.
5. Olsen, A., et al. 1994. Gene organization of the pregnancy-specific glycoprotein region on human chromosome 19: assembly and analysis of a 700-kb cosmid contig spanning the region. *Genomics* 23: 659-668.
6. Teglund, S., et al. 1994. The pregnancy-specific glycoprotein (PSG) gene cluster on human chromosome 19: fine structure of the 11 PSG genes and identification of 6 new genes forming a third subgroup within the carcinoembryonic antigen (CEA) family. *Genomics* 23: 669-684.
7. Beauchemin, N., et al. 1999. Redefined nomenclature for members of the carcinoembryonic antigen family. *Exp. Cell Res.* 252: 243-249.

CHROMOSOMAL LOCATION

Genetic locus: PSG2 (human) mapping to 19q13.31.

SOURCE

PSG2 (C-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of PSG2 of human origin.

RESEARCH USE

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

PRODUCT

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

Blocking peptide available for competition studies, sc-169061 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

PSG2 (C-12) is recommended for detection of PSG2 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); non cross-reactive with other PSG family members.

Suitable for use as control antibody for PSG2 siRNA (h): sc-97157, PSG2 shRNA Plasmid (h): sc-97157-SH and PSG2 shRNA (h) Lentiviral Particles: sc-97157-V.

Molecular Weight of PSG2: 37 kDa.

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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.