

DESCRIPTION

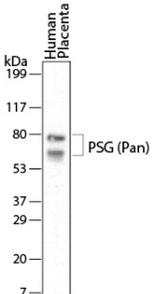
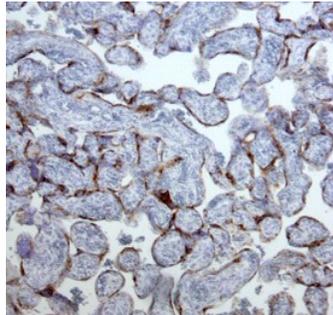
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|---------------------------|---|
| Species Reactivity | Human |
| Specificity | Detects human PSG-1, -2, -3, -5 and -6 in Western blots. |
| Source | Monoclonal Mouse IgG _{2B} Clone # 684701 |
| Purification | Protein A or G purified from hybridoma culture supernatant |
| Immunogen | Mouse myeloma cell line NS0-derived recombinant human PSG-1 Val36-Pro419 Accession # P11464 |
| Formulation | Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS. |

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

| | Recommended Concentration | Sample |
|-----------------------------|---------------------------|-----------|
| Western Blot | 1 µg/mL | See Below |
| Immunohistochemistry | 8-25 µg/mL | See Below |

DATA

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|---|---|---|
| <p>Western Blot</p>  | <p>Detection of Human PSG by Western Blot. Western blot shows lysates of human placenta tissue. PVDF membrane was probed with 1 µg/mL of Mouse Anti-Human PSG Pan Specific Monoclonal Antibody (Catalog # MAB6799) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). Specific bands were detected for PSG at approximately 72 and 64 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.</p> | <p>Immunohistochemistry</p>  <p>PSG in Human Placenta. PSG was detected in immersion fixed paraffin-embedded sections of human placenta using Mouse Anti-Human PSG Pan Specific Monoclonal Antibody (Catalog # MAB6799) at 15 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Mouse HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS002) and counterstained with hematoxylin (blue). Specific staining was localized to cytotrophoblast cells. View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.</p> |
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PREPARATION AND STORAGE

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|--------------------------------|--|
| Reconstitution | Sterile PBS to a final concentration of 0.5 mg/mL. |
| Shipping | The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C |
| Stability & Storage | Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution. |

BACKGROUND

Pregnancy-specific beta-1-glycoprotein 1 (PSG-1), also called SP1, PSbG1 or B1G1 and designated CD66f, is a 54-72 kDa, 419 amino acid (aa) secreted glycoprotein of the human PSG family within the CEA (carcinoembryonic antigen) superfamily. PSG-1 shares limited aa sequence identity with mouse PSGs, but 84-91% aa sequence identity with human PSG-3, -4, -6, -7, and -8. Potential isoforms of 417-428 aa vary at the extreme C-terminus. PSG-1 is produced by syncytiotrophoblast cells and its concentration increases in maternal plasma as pregnancy progresses. Low plasma PSG-1 in the first or early second trimester has been correlated with fetal growth restriction. Expression of PSGs has also been detected in choriocarcinomas, hydatiform moles, ovarian adenocarcinomas, and breast tumors. During pregnancy, PSG-1 may play role in placental vascular morphogenesis and creation of an anti-inflammatory uterine environment.