

#### DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human PSP94 in direct ELISAs and Western blots.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human PSP94 isoform 1 (R&D Systems, Catalog # 3780-PS) Ser21-Ile114 Accession # P08118
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied 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.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Western Blot</b>	0.1 µg/mL	Recombinant Human PSP94 (Catalog # 3780-PS)

#### PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.2 mg/mL in sterile PBS.
<b>Shipping</b>	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
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

#### BACKGROUND

PSP94 (prostate secretory protein of 94 amino acids; also named β-MSP) is a secreted, non-glycosylated member of the β-microseminoprotein family (1). The 94 amino acid (aa) mature PSP94 contains no classic motifs or domains, but does have ten Cys that are conserved across species (1, 2). It is expressed in mucoid secretions, but its function is unknown (2, 3). PSP94 is abundant in prostatic fluid, which is the exclusive source in rodents (4). Gastric and respiratory secretory epithelia are also significant sources in humans (2, 3). Human PSP94 circulates bound to a 71 kDa PSP binding protein, possibly disulfide-linked (5). The seminal fluid protein CRISP-3 can also bind PSP94 (6). PSP94 has been proposed as an alternative to PSA as a serum marker for prostate cancer. When total (bound plus free) PSP94 is considered, its secretion is found to be down-regulated in cancer cells, creating below normal circulating levels (7, 8). Its size is predicted at 11 kDa, but may appear to be 16 kDa due to anomalous migration (3). A 61 aa variant, formed by C-terminal proteolysis, is increased in prostate secretions from patients with benign prostatic hyperplasia (9). A prostate-specific alternate splice form shows a substitution of 41 aa for the C-terminal 78 aa (10). Mature human PSP94 shares 53%, 46%, 43%, and 42% aa identity with porcine, rat, mouse, and chicken PSP94, respectively. Most of the ten primate sequences available show less than 80% aa identity. PSP94 has been proposed as a species barrier protein due to its low evolutionary conservation and abundance in seminal fluid (11).

#### References:

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