

Certificate of Analysis

Revision: 001

Revision Date: 22 NOV 2025

Trade Name: Prostate Specific Antigen (PSA) from human semen

Prostate Specific Antigen (PSA) from human semen Analysis Certificate (COA)

Specification	Details
Product Name	Prostate Specific Antigen (PSA)
Source	Human semen
Catalogue Number	497-11
Purity	≥98%, verified by SDS-PAGE
Appearance	Clear, colorless liquid
Protein Concentration	1-5 mg/ml
Physical Form	Liquid
Formulation	Dissolved in Tris buffer, pH 7.4, with thiomersal as a preservative
Endotoxin	≤1 EU/mg
Storage	-20 °C
Shelf Life	2 years
Molecular Weight	~28,430 Da
HBV	Negative
HCV	Negative
HIV-1/HIV-2	Negative

Description: PSA is a glycoprotein serine protease primarily produced by prostatic tissue and naturally secreted at high concentrations in human seminal fluid. It is recognized as one of the most important biomarkers for screening, monitoring, and early detection of prostate cancer, as alterations in serum PSA levels are directly associated with pathological activity and abnormal proliferation of prostate cells. PSA purified from human semen retains its native structure and biological activity, making it a reliable reference standard for the development, calibration, and performance evaluation of immunoassays (such as ELISA, CLIA, and clinical diagnostic kits). The use of this reference material ensures accuracy, sensitivity, and reproducibility of analytical methods, and plays a key role in research studies and the production of assays related to prostate cancer diagnostics.