

SER: Glossary

ABAcardp30	A commercially available assay for semen that uses a conjugated dye-labeled antibody which forms a complex with the p30 antigen
Acid Phosphatase	Seminal acid phosphatase (AP) is an enzyme produced in the prostate gland whose presence serves as a presumptive test for semen.
Amylase	An enzyme responsible for the breakdown of starch. It is found in high concentration in saliva.
Anode	A positive electrode.
Antibody	A protein with specific receptor sites formed in response to an antigen.
Antigen	A substance which can stimulate an immune response when introduced into a host.
Antiserum / α serum	Serum containing antibodies that are specific for one or more antigens.
Buffer	A solution that resists change in pH when an acid or base is added.
Cathode	A negative electrode.
Confirmatory test	An independent and specific second test to verify positives from presumptive/screening tests.
Crossover electrophoresis	Electrically accelerated union and precipitation of antigen and antibody in a gel.

Continued on next page

SER: Glossary, Continued

Denaturation	Loss of the natural configuration of a molecule through heat, chemical treatment, or pH change.
Electrophoresis	The movement of charged particles in a medium when an electric current is applied.
False positive	A test result that is erroneously positive.
Fluoresce	To emit visible light when exposed to light of a shorter wavelength - i.e. ultraviolet light.
Hemastix®	A commercially available strip that can be used as a presumptive test for blood.
Hemo-chromogen	Insoluble, pink, needle-shaped crystals observed with a positive Takayama test.
Hemoglobin	A red blood cell protein responsible for transporting oxygen.
Kastle-Meyer	A presumptive color test for blood that relies on the peroxidase-like activity of the heme-group in red blood cells.
Ouchterlony test	A species of origin test for blood and tissue.
p30	A protein found in semen produced in the prostate gland.
Peroxidases	Enzymes that accelerate the oxidation of several classes of organic compounds by peroxides.

Continued on next page

SER: Glossary, Continued

Precipitin reaction	An antigen-antibody reaction that forms a precipitate.
Presumptive test	A chemical screening test which establishes by production of color or light that a sample is possibly a body fluid of forensic interest (i.e. blood, semen, etc.)
Radial diffusion	A test in which a liquid is loaded into a gel containing the other reactant allowing the liquid to diffuse into the gel.
RSID™ Semen	A commercially available assay for semen that uses two monoclonal antibodies specific for semenogelin, a protein found in semen.
Saliva	Oral secretion comprised of water, mucus, proteins, salts, and enzymes.
Semen	A thick whitish fluid that is produced during ejaculation by male mammals and carries sperm cells.
Semenogelin	A protein found in semen produced by the seminal vesicles.
Spermatozoa	The mature fertilizing gametes of a male organism specific to semen. (singular) sperm cell, spermatozoon, zoosperm.
Standards	A condensed and compact set of authentic specimens which should contain a true cross section of the material from a known source.
Takayama test	A confirmatory crystal test for blood based on the formation of the hemoglobin derivative crystal hemochromogen.
Urea	Nitrogenous compound found in high levels in urine.