



Fertility Panel

Product Sheet

Zinc

BioSystems

What is Zinc?

Zinc is a transition metal essential in human nutrition. The most available dietary sources of zinc are red meat and fish. More than 200 zinc metalloenzymes occur in all six categories of enzyme systems. Zinc levels in seminal plasma are associated with fertility. Its concentration is used in determining the secretory function of the prostate gland.

Why measure Zinc?

Zinc levels in seminal plasma are associated with fertility. Its concentration is used in determining the secretory function of the prostate gland. Low values indicate an abnormal disruption of the secretory function, possibly as a result of obstruction of the conducts due to inflammation of acute or chronic nature.

Reference values and pathologies

Normal values in seminal plasma: 5000-50000 µg/dL
(764-7644 µmol/L)

These ranges are given for orientation only; each laboratory should establish its own reference ranges.

Decreased levels:

- Male infertility (related with cases of asthenozoospermia, necrozoospermia, oligoasthenozoospermia and zoospermia)
- Chronic prostatitis
- Prostate dysfunction (duct obstruction)

Increased levels: no clinical significance

Method

Zinc in the sample reacts with 5-Br-PAPS in alkaline medium forming a coloured complex that can be measured by spectrophotometry.

Performance characteristics

Method:	BROMO-PAPS
Analysis mode:	Differential bireagent
Detection limit:	176 µg/dL
Linearity limit:	30000 µg/dL
Wavelength:	560 nm
On board stability:	2 months
Repeatability:	0.9% at 13600 µg/dL
Reproducibility:	2% at 13600 µg/dL
Sample type:	Seminal plasma
Interferences:	Bilirubin (20 mg/dL) do not interfere. Lipemia (triglycerides 10 g/L) and hemolysis (hemoglobin 1.25 g/L) interfere. Other drugs and substances may interfere

Reagents

Product	Code	Kit Format	Format
Manual/A15/A25 Automated System*	12526	2 x 20 mL + 1 x 10 mL	Lyophilized RA; Liquid RB
Fertility Biochemistry Control	18053	1 x 1 mL	Lyophilized

*Standard included in the kit

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