FRUCTOSE IN SEMEN

IVD

PRODUCT CODE
GP006

INTENDED USE
This reagent is intended for in vitro quantitative determination the amount of fructose in seminal fluid.

PRINCIPLE
Fructose reacts with boiled concentrated hydrochloric acid. This converts fructose to Oxymethyl Furfural, which then condensed with resorcinol to form a red color complex. The absorbance of this red complex is proportional to fructose concentration in the complex.
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REAGENT COMPOSITION
Reagent 1

Acidic resorcinol	50 mg/dL

Reagent 2 (Standard)

Fructose	500 mg/dL

REAGENT PREPARATION
All reagents are ready to use.

REAGENT STORAGE AND STABILITY
Reagent and standard are stable up to the expiration date given on label when stored at 2-8°C

PRECAUTION
To avoid contamination, use clean laboratory wares.
Avoid direct exposure of reagent to light.

SAMPLE
Semen, centrifuge the semen sample to sediment the sperms, then take the supernatant

EQUIPMENT
Centrifuge, pipette

ASSAY

Wavelength	546nm (530 -550nm)
Cuvette	1 cm light path
Incubation Temperature	Boiling Water - bath
Measurement	Against reagent blank

PROCEDURE

Pipette into cuvettes	Blank	Standard	Sample
D.Water	20 µL	--	--
Reagent 2 (standard)	--	20 µL	--
Sample	--	--	20 µL
Reagent 1	1000 µL	1000 µL	1000 µL
Mix, and incubate in boiling water bath for 7-10 minutes. Cool directly all tubes under tap water, and read the absorbance of all tubes against reagent blank.			

CALCULATION

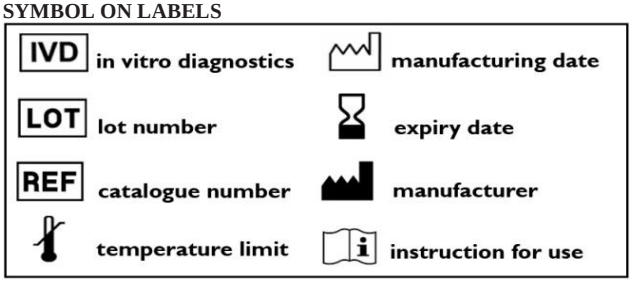
$$\text{Fructose in semen. (mg/dL)} = \frac{\Delta A \text{ sample}}{\Delta A \text{ standard}} \times 500 \text{ (Std.Conc)}$$

LINEARITY
This procedure is linear up to 1200 mg/dL. For higher range, the sample should be diluted with normal saline and multiply the result by the dilution factor.

NORMAL RANGE
The normal range for fructose level of normospermic in men is 120-500 mg/dl or 6.7-27.8 mmol/L.

NOTE
Use clean disposable pipette tips for its dispensation.

SYMBOL ON LABELS



BIBILOGRAPHY
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