



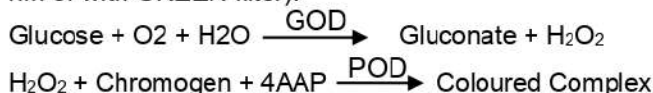
Reagent kit for quantitative estimation of Glucose in Serum or Plasma.

DIAGNOSTIC SIGNIFICANCE:

Blood glucose estimations are generally carried out for the diagnosis and follow up of diabetes mellitus. In general terms glucose levels less than 50 mg/dl or so are termed as hypoglycemia and more than 200 mg/dL levels are termed as hyperglycemia. Hyperglycemia and Hypoglycemia are also associated with various hormonal disorders e.g. Hormones from Pituitary, Thyroid etc.

PRINCIPLE:

Glucose Oxidase (GOD) oxidizes Glucose to Gluconic acid and generates hydrogen peroxide. Hydrogen Peroxide further react with phenol and 4-aminoantipyrin (4AAP) in the present of Peroxidase (POD) to form a red quinoneimine dye. Intensity of colour is directly proportional to the amount of Glucose in the sample and is measured at 505 nm (500-520 nm or with GREEN filter).



SPECIMEN COLLECTION:

Blood sample collected with any one of anticoagulants like fluoride, oxalate, EDTA, heparin or without any of the anticoagulants can be used. To prevent glycolysis and better accuracy separation of serum or plasma as soon as possible is necessary.

PRESENTATION:

| Pack Size | 5 X 100 ml | 10 X 100 ml |
|--------------------------|------------|-------------|
| Glucose Reagent | 5 X 100 ml | 10 X 100 ml |
| Glucose Std. (100 mg/dl) | 1 X 02 ml | 1 X 05 ml |

PREPARATION OF WORKING REAGENT:

Glucose is Ready-to-use.

REAGENT STORAGE AND STABILITY:

Liquid Glucose reagent is stable until the expiry date printed on the label of the bottle, when stored at 2-8°C.

NORMAL VALUES:

Fasting : 70 -110 mg/dl (3.90-6.11mMol/L)

2 Hrs Post Prandial : upto 140mg/dl (7.78mMol/L)

CSF : 50 – 80 mg/dl

Each laboratory should establish its own normal range

ASSAY PARAMETERS:

| | |
|-------------------------------|----------------------------|
| Reaction : End point | Sample Volume : 10 µl |
| Wavelength : 505 nm (500-520) | Reagent Volume : 1.0 ml |
| Zero Setting : Reagent Blank | Standard Conc. : 100 mg/dl |
| Incub.Temp. : 37 °C | Linearity : 500 mg/dl |
| Incub. Time : 10 minutes | Unit : mg/dl |

PROCEDURE:

| Pipette into TT | Blank | Std | Test |
|------------------------------|--------|--------|--------|
| Glucose Reagent | 1.0 ml | 1.0 ml | 1.0 ml |
| Glucose Standard (100 mg/dl) | -- | 10 µl | -- |
| Sample (Test) | -- | -- | 10 µl |

Mix & incubate at 37°C for 10 minutes or 15 minutes at RT. Read absorbance of Standard (S) and Test (T) after 10 minutes against reagent blank at 505 nm (500-520 nm or Green filter).

CALCULATION:

Glucose (mg/dl) = Abs T ÷ Abs S X 100

LINEARITY:

This method is linear up to 500 mg/dl. For sample value above 500mg/dl, dilute the sample suitably with 0.9 % saline & repeat the assay. Apply correction due to dilution to arrive at a final result.

REFERENCES:

- TRINDER P, Annual Clinical Biochem 6, 24-25 (1969)
- TIETZ, N. W. (ed.) Fundamentals of Clinical Chemistry, 2nd edition. W. B. Saunders Co, Toronto, 242-251, (1982).

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Expiry Date



In-Vitro Diagnostics Use



Storage



Mfg. Date



Batch Number



Catalogue Number



See Package Insert