

## Glycosylated Serum Proteins (GSP) Test Kit (NBT Method)

### 【NAME】

Glycosylated Serum proteins (GSP) Test Kit (Two Points)

### 【INTEND USE】

This reagent is intended for the in vitro quantitative determination of Glycosylated Serum Proteins (GSP) in human serum.

The content of glycosylated serum protein can reflect the level of blood glucose in patients with DM during the past 2 to 3 weeks. HbA1c represents the average blood sugar over the past six to eight weeks, later than the change of FMN. When the change of DM blood sugar value is large, FMN can monitor the condition in time and adjust the treatment plan.

Serum FMN and C-peptide were negatively correlated with fasting plasma insulin, so it can be used as the monitoring index of insulin therapy DM. FMN is more sensitive to glucose metabolism than HbA1c. To judge the short-term efficacy of DM, timely selection of reasonable treatment options, more useful than the HbA1c. The serum FMN can be used as the identification of DM pregnancy and pregnant women with high blood glucose.

### 【METHODOLOGY】

In alkaline conditions, the nitroblue tetrazolium reduction into purple substance, its yield is proportional to the concentration of glycosylated serum protein.

### 【STABILITY AND STORAGE】

Unopened, avoid light preservation in 2 ~ 8 °C, valid for 12 months;

Opened, avoid light preservation in 2 ~ 8 °C, valid for 15days.

Reagent is not allowed frozen.

### 【SPECIMEN COLLECTION AND HANDLING】

It is best to fresh Serum;

Sample stability: 2~8°C preservation stability in 7 days.

When the triglyceride concentration of sample ≤2000mg/dl; bilirubin concentrations ≤30mg/dL, Uric acid concentrations ≤5.00g/L, was not observed clearly disturbance.

### 【APPLICABLE INSTRUMENT】

Fully automatic biochemical analyzer..

### 【SYSTEM PARAMETERS】

The following system parameters are recommended. Individual instrument applications are available upon request from the Technical Support Group

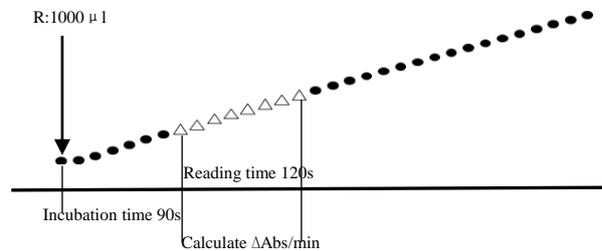
Temperature	37° C
Cuvette light path	1.0cm
Primary Wavelength	546 nm
Secondary Wavelength	700nm
Assay Type	Rate method
Direction	Increase
Sample : ReagentRatio	1:10
eg : Sample Vol	30 μL
Reagent Vol	300 μL
Linearity	0~1000umol/L
Testing	Deducting the reagent blank

### 【OPERATION STEPS】

R: Reagent S: Calibrator U: Sample

Distilled water、U or S:100 μl;

R:1000 μl



### 【CALCULATION】

Use the Calibrator:

$$\text{GSP sample concentration} = \frac{\text{Sample } \Delta A / \text{min}}{\text{Calibrator } \Delta A / \text{min}} \times \text{Calibrator concentration}$$

### 【REFERENCE RANGE】

Serum: ≤286 μmol/L

By clinical trials, choose no less than 100 newborn or adults blood specimens, tested by automatic biochemical analyzer, and then processing the testing value with statistical method, calculating out the reference range.

### 【THE LIMITATION OF TEST RESULTS】

Glycosylated serum proteins (GSP) testing is just one of the standard that clinician diagnose the patient. Clinical physicians should according to patients' bodies, history and other diagnostic program, to get comprehensive judgment.

### 【THE INTERPRETATION OF TEST RESULTS】

Human error, the processing of specimen, analysis instrument deviation, etc. all can affect the measurement result; When one sample deviates from the expected value too far, need to be tested again.

### 【PERFORMANCE INDEX】

1. Reagent blank absorbance ≤0.1 (546nm, 1cm optical path).
2. Precision: repeatability CV ≤5%; batch variations R ≤8%.
3. Accuracy: relative deviation ≤10%.
4. Linearity range: 0~1000 μmol/L, r ≥0.990.

### 【ATTENTION】

1. Reagent contains sodium azide (toxic) preservatives, avoid contact with skin and mucous membrane. If necessary preventive measures should be taken use of reagents, reagent contact with skin and mucous membrane, please rinse with water, please go to a doctor if necessary.
2. The maximum linearity is 6000 μmol/L. If testing results is upper limit, dilute with 0.9% sodium chloride solution before test, results multiplied by the dilution ratio.
3. Liquid waste disposal: Suggest follow local regulations
4. Different batches reagents cannot mix, when replacing reagents batch number, please calibration again.