LABORATORY REPORT

Redcliffe labs

Patient NAME	**: Mrs Dummy**		
DOB/Age/Gender	: 34 Y/Female	Report STATUS	: Final Report
Patient ID / UHID	: 14472715/OF14472715	Barcode NO	: RL06558990
Referred BY	: Self	Sample Type	: FLUORIDE F
Sample Collected	: Nov 08, 2025, 04:26 PM	Report Date	: Nov 08, 2025, 04:35 PM.

MC-5280

Test Description	Value(s)	Unit(s)	Reference Range

HOMA- IR With C Peptide

Glucose Fasting

Glucose Fasting *Hexokinase*	88	mg/dL	70 - 100

Interpretation:

Status	Fasting plasma glucose in mg/dL
Normal	70 - 100
Impaired fasting glucose	101 - 125
Diabetes	≥126

Reference : American Diabetes Association

Comment :
Blood glucose determinations in commonly used as an aid in the diagnosis and treatment of diabetes. Elevated glucose levels (hyperglycemia) may also occur with pancreatic neoplasm, hyperthyroidism, and adrenal cortical hyper function as well as other disorders. Decreased glucose levels (hypoglycemia) may result from excessive insulin therapy insulinoma, or various liver diseases.

Note
1.The diagnosis of Diabetes requires a fasting plasma glucose of > or = 126 mg/dL or a random / 2 hour plasma glucose value of > or = 200 mg/dL with symptoms of diabetes mellitus.
2.Very high glucose levels (>450 mg/dL in adults) may result in Diabetic Ketoacidosis.

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Patient NAME	**: Mrs Dummy**		
DOB/Age/Gender	: 34 Y/Female	Report STATUS	: Final Report
Patient ID / UHID	: 14472715/OF14472715	Barcode NO	: RL06559018
Referred BY	: Self	Sample Type	: Serum
Sample Collected	: Nov 08, 2025, 04:26 PM	Report Date	: Nov 08, 2025, 04:35 PM.

MC-5280

Test Description	Value(s)	Unit(s)	Reference Range

Insulin Fasting

Insulin (Fasting) *CMIA*	12	µU/mL	<25.0

Interpretation:
Note
1. A single random blood sample for insulin may provide insufficient information due to wide variation in the time responses of insulin levels and blood glucose.
2. Stimulation of insulin secretion may be caused by many factors like hyperglycemia, glucagon, amino acids, growth hormone and catecholamines.
3. Interference in insulin assay is seen due to insulin antibodies which develop in patients treated with bovine or porcine insulin.

Clinical Utility
· Evaluation of fasting hypoglycemia
· Evaluation of Polycystic Ovary syndrome
· Classification of Diabetes mellitus
· Predict Diabetes mellitus
· Assessment of Beta cell activity
· Select optimal therapy for Diabetes
· Investigation of insulin resistance
· Predict the development of Coronary Artery Disease

Increased levels -
Insulinoma, Some Type II diabetic patients, Infantile hypoglycemia, Hyperinsulinism, Obesity, Cushing's syndrome, Oral contraceptives, Acromegaly, Hyperthyroidism

Decreased levels -
Untreated Type I Diabetes mellitus

C Peptide Fasting

C - PEPTIDE (Fasting) *CMIA*	**23**	ng/mL	0.78 - 1.89

Interpretation:
Clinical Use
1. Assess pancreatic islet cell function
2. Distinguish insulin secreting tumors (Insulinoma) from exogenous insulin administration as a cause of hypoglycemia (commercial insulin does not contain C-peptide). Sera from Insulinoma patients have high insulin and high C-peptide levels whereas hypoglycemia from injected or exogenous insulin shows high insulin and low C-peptide levels.
3. Distinguish Type I and Type II Diabetes mellitus

Increased Levels –
Insulinoma & Type II Diabetes

Decreased Levels-
Type I Diabetes & Exogenous insulin administration

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Referred BY	: Self	Sample Type	: INSULIN F
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Test Description	Value(s)	Unit(s)	Reference Range

Beta Cell Function (%B)

Beta Cell Function (%B)	12		

Interpretation:
1. Beta cells are specialized cells in the pancreas that produce and release insulin. This hormone helps regulate blood sugar levels by facilitating glucose uptake into cells for energy or storage. Dysfunction of beta cells can lead to insufficient insulin production, resulting in elevated blood sugar levels and diabetes.

2. The beta cell function (%B) blood test evaluates how beta cells function, produce, and release glucose in response to changes in blood sugar levels. It provides insight into the capacity of beta cells to regulate blood sugar and maintain glucose homeostasis.

3. Beta cell function (%B) is calculated using mathematical models that assess the relationship between insulin secretion and blood glucose levels.

Insulin Sensitivity (%S)

Insulin Sensitivity (%S)	14	%	

Interpretation:
1. Insulin sensitivity refers to the body's ability to respond to insulin by taking glucose from the bloodstream and using it for energy or storage. High insulin sensitivity means the body requires lower insulin levels to maintain normal blood sugar levels. In contrast, low insulin sensitivity, also known as insulin resistance, means higher insulin levels are needed to achieve the same effect.

2. The insulin sensitivity (%S) blood test evaluates how efficiently your body uses insulin to lower blood sugar levels. It is often ordered in individuals with suspected insulin resistance or metabolic syndrome, a cluster of conditions that increase the risk of heart disease, stroke, and type 2 diabetes.

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HOMA IR Index

Test Description	Value(s)	Unit(s)	Reference Range
HOMA IR Index *Calculated*	56		<2.5

*** End Of Report ***

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