



BML532574

Laboratory Investigation Report

Name	: Mr. EHSTISHAM JUNED JUNED NIAZ BEG	Ref No.	: 45968
DOB	: 29/04/1987	Sample No.	: 2503545616
Age / Gender	: 37 Y 10 M / Male	Collected	: 01/03/2025 13:55
Referred by	: CITICARE MEDICAL CENTER	Registered	: 01/03/2025 22:17
Centre	: CITICARE MEDICAL CENTER	Reported	: 02/03/2025 11:31

BIOCHEMISTRY

Test	Result	Flag	Unit	Reference Range	Methodology
C-PEPTIDE (FASTING) [^]	0.45	L	ng/mL	1.1 - 4.4 Please note change in method and reference range. Source: Roche.	ECLIA

INTERPRETATION NOTES :

Indication: C-peptide (serum/plasma) is intended for use as an aid in diagnosis and treatment of patients with abnormal insulin secretion.

Clinical Information and Utility:

- C-peptide is a peptide released from the pancreatic beta cells during cleavage of insulin from proinsulin & mainly excreted by the kidney with half-life 3-4 times longer than insulin. To quantify the endogenous insulin secretion, C- peptide can be measured basally, after fasting and after stimulation and suppression tests.
- Measurements of C-peptide along with insulin and glucose are used for differential diagnosis of hypoglycemia (factitious or hypoglycemia caused by hyperinsulinism).
- Due to high prevalence of endogenous anti-insulin antibodies, C-peptide concentrations are more reliable indicators of endogenous pancreatic insulin secretion in insulin-treated diabetics than the levels of insulin itself. Therefore, C-peptide levels aid in assessment of residual beta cell function in early stages of Type 1 DM and for differential diagnosis of latent autoimmune diabetes of adults (LADA) and type 2 diabetes.
- C-peptide levels are also used to assess the success of islet transplantation and for monitoring after pancreatectomy. There is also evidence that C-peptide replacement together with insulin administration may retard the progression of long term complications in T1DM.

Interpretation:

- Elevated levels are seen in Insulinomas, Insulin resistance (eg: obesity, Cushing syndrome), Renal insufficiency, and Sulfonylurea intoxication.
- Decreased C-peptide levels are seen in T1DM, Hypoglycemia due to insulin-like growth factor secreting tumor, Insulin-independent hypoglycemia, and Exogenous insulin injection (factitious).

Note: C-peptide levels show variation with time, food intake, and insulin administration, hence a baseline fasting level and associated insulin and blood glucose levels are advocated. The values may also be falsely high in renal impairment and cirrhosis.

References:

- Kit Insert (Roche)
- Novac C, Radulian G., et. al. Short Update on C-Peptide and its Clinical Value. Maedica (Bucur). 2019 Mar;14(1):53-58. Greek, Modern. doi: 10.26574/maedica.2019.14.1.53.

Sample Type : Serum

End of Report

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Test result pertains only to the sample tested and to be interpreted in the light of clinical history. These tests are accredited under ISO 15189:2012 unless specified by (^). Test marked with # is performed in an accredited referral laboratory.

