

Intact human Proinsulin

ELISA CE
96 tests

Cat. No.:	TE1012
Range:	~ 3 – 100 pmol/L
Sensitivity:	0.3 pmol/L
Incubation time:	2.5 hours
Sample volume:	50 µL
Sample type:	Serum, EDTA / Heparin plasma
Sample preparation:	Fasting blood samples.

Due to higher stability, EDTA or heparin plasma samples are preferred to serum samples.

Plasma: the sample collection can take place in HbA_{1C}-tubes.

These samples are stable at room temperature and should be centrifuged within 48 hours. Plasma should be used in the assay or can be stored in aliquots, stable up to 2 years at -20°C.

Serum: centrifuge whole blood within 4 hours. Proteases degrade intact proinsulin in serum, do not store longer *than* 1 day at 2 – 8°C. Serum should be used in the assay or can be stored in aliquots at -20°C.

Avoid repeated freeze/thaw cycles.

Reference values:	After fasting:	≤ 11 pmol/L (normal secretion)
		> 11 pmol/L (dysfunction of secretion)
Species:	Human	
Specificity:	No cross-reactivity has been observed:	

Human Insulin	< 10 000 pmol/l
Human C-Peptide	50 000 pmol/l
Des (31,32) - Proinsulin	< 200 pmol/l
Split (32,33) - Proinsulin	5000 pmol/l
Des (64,65) - Proinsulin*	200 pmol/l
Split (65,66) - Proinsulin	1000 pmol/l

* not present in Serum and Plasma samples

Intended use:

Proinsulin is produced in the pancreatic β -cells and is normally further processed to insulin and C-peptide. It is only seen in low concentrations in the plasma of healthy subjects. An increase in the insulin demand, as provided by insulin resistance in later stages of type 2 diabetes mellitus, can result in increased expression of proinsulin into the blood. Intact proinsulin is rapidly degraded, but is considered to be an independent cardiovascular risk factor. The intact molecule and its degradation products are known to block fibrinolysis because of plasminogen-activator inhibitor (PAI-1) stimulation.

In clinical practice, fasting morning intact proinsulin can be used as highly specific indicator of clinically relevant insulin resistance, to serve as the basis for the selection of an insulin resistance therapy, and to monitor the therapeutic effect on β -cell dysfunction. Patients with type 2 diabetes mellitus and with elevated fasting intact proinsulin levels should be regarded and treated as insulin resistant, in order to reduce the risk for further cardiovascular damage. Elevated fasting intact proinsulin levels may also be seen in patients with insulinoma, a benign insulin producing tumor of the pancreas.

For further information please contact / Für weitere Informationen wenden Sie sich bitte an / Pour plus d'informations, veuillez contacter:

OSTEOmedical Group
partner

always your

Headquarter:

TECOmedical AG
Gewerbestrasse 10
4450 Sissach
Switzerland

phone +41 (0) 61 985 81 00
fax +41 (0) 61 985 81 09

mail info@teco-medical.ch
web www.teco-medical.ch

OSTEOmedical GmbH
Wasserbreite 57
32257 Bünde
Germany

phone +49 (0) 5223 985 99 99
fax +49 (0) 5223 985 99 98

mail info@osteomedical.com
web www.osteomedical.com

OSTEOmedical SARL
173, rue de Charenton
Bâtiment 1, 75012 Paris
France

phone/fax +33 (0) 1 43 67 12 76
fax cdes +33 (0) 1 43 40 82 52

mail chdu@osteomedical.com
web www.osteomedical.com

Osteomedical NL
't Hazeveld 34
3862 XB Nijkerk
The Netherlands

phone +31 (0) 33 4951 473
fax +31 (0) 33 4951 635

mail sbk@osteomedical.com
web www.osteomedical.com