

<div>Insulin</div> <div><div>Analytical Performance Specification</div><div>RCV Calculation</div></div>						
Matrix	BV Estimate	median CV estimate	lower CI limit	higher CI limit	Comments	Date Updated
Serum/plasma	👤	25.4	21.1	37.1		21/9/2023
Serum/plasma	👥	33.5	31.5	81.8		21/9/2023

Colour Key for References

Included In Meta Analysis Not Included In Meta Analysis

Reference	Dataset	Estimate of CVI	Estimate of CVG	Gender	Age	State of Well Being	Matrix	Sampling Interval
Biological variation of serum insulin: updated estimates from the European Biological Variation Study (EuBIVAS) and meta-analysis	<div>View</div>	25.3	33.4	Mixed		Healthy	Serum	1 per Week
<div>View</div>								
Intra-individual variation: significant changes in parameters of lipid and carbohydrate metabolism in the individual and intra-individual variation in different test populations	<div>View</div>	21.1	31.5	Mixed		Healthy	Plasma	1 per Week
<div>View</div>								
Biological variation of glucose, insulin and lipids in lean, insulin-sensitie and obese, insulin-resistant chinese males without diabetic	<div>View</div>	27.9	45.4	Males		Healthy	Serum	3 per Week
<div>Rizi EP, Baig S, Toh SA and</div>								

Khoo CM, Pathology , 510-2, 48, 2016

View

Short-term, within-person variability in clinical chemistry test results

Eckfeldt J,Chambless LI and Shen Y, Arch Pathol Lab Med, 496-500, 118, 1994

View

37.1

81.8

Mixed

Healthy

Serum

2 per Week

View

Analytical and biological variability in biomarker measurement in the Hispanic Community Health Study/Study of Latinos

Thyagarajan B, Howard AG, Durazo-Arvizu R, Eckfeldt JH, Gellman MD, Kim RS, Liu K, Mendez AJ, Penedo FJ, Talavera GA, Youngblood ME, Zhao L and Sotres-Alvarez D, Clin Chim Acta, 129-137, 463, 2016

View

36.9

66.78

Males

Healthy

Serum

2 per Month

View

Analytical and biological variability in biomarker measurement in the Hispanic Community Health Study/Study of Latinos

Thyagarajan B, Howard AG, Durazo-Arvizu R, Eckfeldt JH, Gellman MD, Kim RS, Liu K, Mendez AJ, Penedo FJ, Talavera GA, Youngblood ME, Zhao L and Sotres-Alvarez D, Clin Chim Acta, 129-137, 463, 2016

View

30.3

92.63

Females

Non-healthy

Serum

2 per Month

View

Within- and between-subject variationin comoly measured anthropometricand biochemical variables.

Widjaja A, Morris RJ, Levy JC, Frayn KN, Manley SE and Turner RC, Clin Chem , 561-6, 45, 1999

View

26.0

26.0

Mixed

22.7

Healthy

Plasma

1 per Day

View

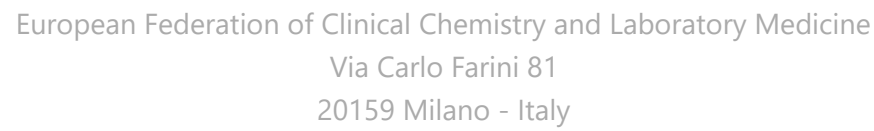
Quality goals for hormone testing	View	15.2	34.7	Mixed	Healthy	Unknown Unknown matrix	1 per Day	
View								
Estimate of biological variation of laboratory analytes based on the third National Health and Nutrition Examination Survey	View			Mixed	42.9	Healthy	Plasma	"No Sampling Intervals"
Lacher DA, Hughes JP and Carroll MD, Clin Chem, 450-2, 51, 2005								
View								
Biological variation of glucose, insulin and lipids in lean, insulin-sensitie and obese, insulin-resistant chinese males without diabetes	View	29.8	48.9	Males		Non-healthy	Serum	3 per Week
Rizi EP, Baig S, Toh SA and Khoo CM, Pathology , 510-2, 48, 2016								
View								
Covariance of metabolic and hemostatic risk indicators in men and women.	View	22.0	30.2	Females	30.19	Healthy	Serum	2 per Day
Riese H, Vrikkotte TGM, Meijer P, Kluft C, De Geus EJC, Fibrinolysis & Proteolysis, 1-12, 14, 2001								
View								
Covariance of metabolic and hemostatic risk indicators in men and women.	View	26.9	53.9	Males	45.23	Healthy	Serum	3 per Week
Riese H, Vrikkotte TGM, Meijer P, Kluft C, De Geus EJC, Fibrinolysis & Proteolysis, 1-12, 14, 2001								
View								
Covariance of metabolic and hemostatic risk indicators in men and								

women. Riese H, Vrikkotte TGM, Meijer P, Kluft C, De Geus EJC, Fibrinolysis & Proteolysis, 1-12, 14, 2001	View	18.9	43.9	Females	36.71	Healthy	Serum	2 per Week
View								
Biological variation of serum insulin: updated estimates from the European Biological Variation Study (EuBIVAS) and meta- analysis								
Anna Carobene*, Elisabet Gonzalez Lao, Margarida Simon, Massimo Locatelli, Abdurrahman Coşkun, Jorge Díaz-Garzón, Pilar Fernandez-Calle, Sverre Sandberg and Aasne K. Aarsand, , Clin Chem Lab Med, 518-522, 60, 2020	View	25.0	31.9	Males		Healthy	Serum	1 per Week
View								
Biological variation of serum insulin: updated estimates from the European Biological Variation Study (EuBIVAS) and meta- analysis								
Anna Carobene*, Elisabet Gonzalez Lao, Margarida Simon, Massimo Locatelli, Abdurrahman Coşkun, Jorge Díaz-Garzón, Pilar Fernandez-Calle, Sverre Sandberg and Aasne K. Aarsand, , Clin Chem Lab Med, 518-522, 60, 2020	View	25.3	34.8	Females		Healthy	Serum	1 per Week
View								
Analytical and biological variability in biomarker measurement in the Hispanic Community Health Study/Study of Latinos								
Thyagarajan B, Howard AG, Durazo-Arvizu R, Eckfeldt JH, Gellman MD, Kim RS, Liu K, Mendez AJ, Penedo FJ, Talavera GA, Youngblood ME, Zhao L and Sotres- Alvarez D, Clin Chim Acta, 129-137, 463, 2016	View	22.3	80.7	Females		Healthy	Serum	2 per Month
View								

<div>Estimate of biological variation of laboratory analytes based on the third National Health and Nutrition Examination Survey</div> <div>Lacher DA, Hughes JP and Carroll MD, Clin Chem, 450-2, 51, 2005</div> <div>View</div>	25.2	55.9	Mixed	30.8	Healthy	Plasma	"No Sampling Intervals"
View							
<div>Analytical and biological variability in biomarker measurement in the Hispanic Community Health Study/Study of Latinos</div> <div>Thyagarajan B, Howard AG, Durazo-Arvizu R, Eckfeldt JH, Gellman MD, Kim RS, Liu K, Mendez AJ, Penedo FJ, Talavera GA, Youngblood ME, Zhao L and Sotres-Alvarez D, Clin Chim Acta, 129-137, 463, 2016</div> <div>View</div>	31.8	100.76	Males		Non-healthy	Serum	2 per Month
View							
<div>Analytical and biological variability in biomarker measurement in the Hispanic Community Health Study/Study of Latinos</div> <div>Thyagarajan B, Howard AG, Durazo-Arvizu R, Eckfeldt JH, Gellman MD, Kim RS, Liu K, Mendez AJ, Penedo FJ, Talavera GA, Youngblood ME, Zhao L and Sotres-Alvarez D, Clin Chim Acta, 129-137, 463, 2016</div> <div>View</div>	25.0	75.85	Mixed		Healthy	Serum	2 per Month
View							
<div>Analytical and biological variability in biomarker measurement in the Hispanic Community Health Study/Study of Latinos</div> <div>Thyagarajan B, Howard AG, Durazo-Arvizu R, Eckfeldt JH, Gellman MD, Kim RS, Liu K, Mendez AJ, Penedo FJ, Talavera GA, Youngblood ME. Zhao L and Sotres-</div> <div>View</div>	31.6	96.11	Mixed		Non-healthy	Serum	2 per Month

View

Insulin-like growth factor binding protein 3 (IGFBP-3)



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