FRUCTOSAMINE LIQUID



AVAILABLE ON THE AU480, AU680, AU5800, AND DXC 700 AU CLINICAL CHEMISTRY ANALYZERS

Background

Fructosamine is a glycated protein that can be used to monitor the degree of glycemia in diabetics over short-to-intermediate time frames (1-3 weeks). A fructosamine concentration greater than the established normal range is an indication of prolonged hyperglycemia of 1-3 weeks or longer. This assay is especially useful when it is not possible for patients to monitor their diabetes using the A1c test.

Test principle

Fructosamine, in its ketoaminic form, reduces in an alkaline medium the nitroblue tetrazolium (NBT) to formazan. The reaction rate, photometrically measured, is directly proportional to the concentration of the fructosamine present in the examined sample

Fructosamine Liquid assay features

- > Liquid, ready-to-use reagents, providing more flexible, immediate, and easy use
- > Higher sensitivity than the lyophilized assay for better performance
- > Reagent onboard stability of 28 days
- > Calibration stability of 7 days



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Inter-assay precision

Five commercial controls were assayed in duplicates, twice per day for 23 days on the AU480, AU680, and AU5800. On the DxC 700 AU, five commercial controls were assayed in duplicates, twice per day for 20 days.

AU480

	Mean (µmol/L)	Total Imprecision		Between-days		Repeatability	
		SD	CV (%)	SD	CV (%)	SD	CV (%)
L1	65.3	1.7	2.6	1.1	1.7	1.0	1.5
L2	214.6	5.1	2.4	4.1	1.9	1.2	0.6
L3	259.6	4.0	1.5	2.5	1.0	2.4	0.9
L4	476.0	9.3	2.0	6.0	1.3	2.4	0.5
L5	807.2	17.0	2.1	10.2	1.3	6.6	0.8

AU680

	Mean (µmol/L)	Total Imprecision		Between-days		Repeatability	
		SD	CV (%)	SD	CV (%)	SD	CV (%)
L1	66.9	2.3	3.5	1.0	1.6	1.3	1.9
L2	218.2	4.8	2.2	1.2	0.5	1.7	0.8
L3	261.5	4.3	1.6	3.0	1.2	1.5	0.6
L4	478.9	9.6	2.0	6.9	1.4	3.5	0.7
L5	805.2	20	2.5	10.4	1.3	4.7	0.6

AU5800

	Mean (µmol/L)	Total Imprecision		Between-days		Repeatability	
		SD	CV (%)	SD	CV (%)	SD	CV (%)
L1	65.7	1.4	2.2	0.42	0.6	0.99	1.5
L2	217.7	3.9	1.8	2.59	1.2	2.98	1.4
L3	259.3	3.3	1.3	1.16	0.4	2.02	0.8
∟4	477.3	6.0	1.3	4.63	1.0	2.23	0.5
L5	818.4	13.8	1.7	8.45	1.0	5.3	0.6

DxC 700 AU

	Mean (g/L)	Total Imprecision		Between-days		Repeatability	
		SD	CV (%)	SD	CV (%)	SD	CV (%)
L1	71	1.2	1.8	0.3	0.4	1.0	1.4
L2	203	2.0	1.0	0.9	0.4	1.2	0.6
L3	270	2.2	0.8	1.2	0.5	1.3	0.5
L4	494	4.3	0.9	3.2	0.7	1.9	0.4
L5	861	11.3	1.3	7.1	0.8	3.0	0.4

Correlation: Comparisons were performed against the Architect c16000.

	N	Slope	Y-intercept	Correlation coefficient
AU480	110	1.011	-4.572	r=0.999
AU680	110	1.030	-6.193	r=0.999
AU5800	110	1.063	-13.3	r=0.999
DxC 700 AU	120	0.939	19.8	r=0.998

Ordering information

Item	Size	Tests/Kit AU480/AU680/AU5800	Beckman Coulter Reference Number	Sentinel Diagnostics Reference Number	
Fructosamine Liquid	3x13 mL (R1) 3x4 mL (R2)	300	C63335	1735001	
Fructosamine Calibrator	3x1 mL		C63337	1635101	
Fructosamine Control Set	2x(3x1) mL		C63336	1635201	

For questions, contact your local Beckman Coulter representative or, to learn more about our comprehensive chemistry offering, visit www.beckmancoulter.com/chemistry

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