

Performance Characteristics

Measuring range from 1.13 U/L up to 2500 U/L. Linearity is given within $\pm 5\%$.
In case of higher activities re-measure samples after manual dilution with NaCl solution (9 g/L) or use rerun function.

Limit of detection***	1.13 U/L
Limit of quantitation***	1.13 U/L
Onboard stability	6 weeks
Calibration stability	6 weeks

Interference by	Interferences $\leq 10\%$ up to	Analyte concentration [U/L]
Ascorbic acid	30 mg/dL	80.8
Bilirubin (conjugated)	45 mg/dL	54.7
	45 mg/dL	180
Bilirubin (unconjugated)	50 mg/dL	55.1
	50 mg/dL	188
Hemolysis	200 mg/dL	54.8
	200 mg/dL	175
Lipemia (triglycerides)	2000 mg/dL	51.7
	1200 mg/dL	241

For further information on interfering substances, refer to Young DS [8,9].

Precision			
Repeatability (n=20)	Sample 1	Sample 2	Sample 3
Mean [U/L]	31.9	143	295
CV [%]	1.80	2.43	1.95
Between day (n=20)	Sample 1	Sample 2	Sample 3
Mean [U/L]	25.2	102	133
CV [%]	3.44	2.31	1.99

Method comparison (n=137)	
Test x	DiaSys Pancreatic amylase CC FS (Hitachi 917)
Test y	DiaSys Pancreatic amylase CC FS (respons [®] 910)
Slope	0.959
Intercept	0.349 U/L
Coefficient of correlation	0.999

*** according to CLSI document EP17-A, Vol. 24, No. 34

Conversion Factor

Pancreatic amylase [U/L] x 0.0167 = Pancreatic amylase [μ kat/L]

Reference Range [10]

	Women	Men
Serum/Plasma	< 53 U/L	< 53 U/L
	< 0.88 μ kat/L	< 0.88 μ kat/L

Each laboratory should check if the reference ranges are transferable to its own patient population and determine own reference ranges if necessary.

Literature

- Moss DW, Henderson AR. Digestive enzymes of pancreatic origin. In: Burtis CA, Ashwood ER, editors. Tietz Textbook of Clinical Chemistry. 3rd ed. Philadelphia: W.B Saunders Company;1999. p.689-98.
- Thomas L. Clinical Laboratory Diagnostics [Internet]; 2020 [cited 2023 Jun 19]. Available from: <https://www.clinical-laboratory-diagnostics-2020.com/>
- Gerber M, Naujoks K, Lenz H, Wulff K. A monoclonal antibody that specifically inhibits human salivary alphaamylase. Clin Chem 1987; 33: 1158-62.
- Kruse-Jarres JD, Kaiser C, Hafkenscheid JC, Hohenwallner W, Stein W., Bohner J et al. Evaluation of a new alpha-amylase assay using 4,6-ethylidene (G7)-1-4-nitrophenyl-(G1)-alpha-D-maltoheptaoside as substrate. J Clin Chem Biochem 1989; 27: 103-13.
- Tietz NW, Burlina A, Gerhardt W, Junge W, Maffethermer P, Mural T et al. Multicenter evaluation of a specific pancreatic isoamylase assay based on a double monoclonal-antibody technique. Clin Chem 1988; 34: 2096-102.
- Bakker AJ, Mücke M. Gammopathy interference in clinical chemistry assays: Mechanisms, detection and prevention. Clin Chem Lab Med 2007; 45(): 1240-1243.
- Guder WG, Zawta B et al. The Quality of Diagnostic Samples. 1st ed. Darmstadt: GIT Verlag; 2001. p. 16-17, 50-51.
- Young DS. Effects of Drugs on Clinical Laboratory Tests. 5th ed. Volume 1 and 2. Washington, DC: The American Association for Clinical Chemistry Press 2000.
- Young DS. Effects on Clinical Laboratory Tests - Drugs Disease, Herbs & Natural Products, <https://clinfx.wiley.com/aaccweb/aacc/>, accessed in February 2024. Published by AACC Press and John Wiley and Sons, Inc.
- Junge W, Wortmann W, Wilke B, Waldenstroem J et al. Development and evaluation of assays for determination of total and pancreatic amylase at 37°C according to the principle recommended by the IFCC. Clin Biochem 2001; 34: 607-15.

Additions and/or changes in the document are highlighted in grey. Deletions are communicated via customer info by stating the edition no. of the package insert/instruction for use.



DiaSys Diagnostic Systems GmbH
Alte Strasse 9 65558 Holzheim
Germany
www.diasys-diagnostics.com

* Complete Color

** Fluid Stable

Pancreatic amylase CC FS

Application for serum and plasma samples

This application was set up and evaluated by DiaSys. It is based on the standard equipment at that time and does not apply to any equipment modifications undertaken by unqualified personnel.

Identification	
This method is usable for analysis:	Yes
Twin reaction:	No
Name:	PAMY
Shortcut:	
Reagent barcode reference:	016
Host reference:	016

Technic	
Type:	Linear kinetic
First reagent:[μ L]	160
Blank reagent	Yes
Sensitive to light	
Second reagent:[μ L]	40
Blank reagent	No
Sensitive to light	
Main wavelength:[nm]	405
Secondary wavelength:[nm]	700
Polychromatic factor:	1.0000
1 st reading time [min:sec]	07:48
Last reading time [min:sec]	10:00
Reaction way:	Increasing
Linear Kinetics	
Substrate depletion: Absorbance limit	1.2000
Linearity: Maximum deviation [%]	100.0000
Fixed Time Kinetics	
Substrate depletion: Absorbance limit	
Endpoint	
Stability: Largest remaining slope	
Prozone Limit [%]	

Reagents	
Decimals	
Units	

Sample	
Diluent	DIL A (NaCl)
Hemolysis:	
Agent [μ L]	0 (no hemolysis)
Cleaner	
Sample [μ L]	0
Technical limits	
Concentration technical limits-Lower	1.13000
Concentration technical limits-Upper	2500.0000
SERUM	
Normal volume [μ L]	4.0
Normal dilution (factor)	1
Below normal volume [μ L]	
Below normal dilution (factor)	
Above normal volume [μ L]	4.0
Above normal dilution (factor)	6
URINE	
Normal volume [μ L]	4.0
Normal dilution (factor)	1
Below normal volume [μ L]	
Below normal dilution (factor)	
Above normal volume [μ L]	4.0
Above normal dilution (factor)	6
PLASMA	
Normal volume [μ L]	4.0
Normal dilution (factor)	1
Below normal volume [μ L]	
Below normal dilution (factor)	
Above normal volume [μ L]	4.0
Above normal dilution (factor)	6
CSF	
Normal volume [μ L]	4.0
Normal dilution (factor)	1
Below normal volume [μ L]	
Below normal dilution (factor)	
Above normal volume [μ L]	4.0
Above normal dilution (factor)	6
Whole blood	
Normal volume [μ L]	4.0
Normal dilution (factor)	1
Below normal volume [μ L]	
Below normal dilution (factor)	
Above normal volume [μ L]	4.0
Above normal dilution (factor)	6

Results	
Decimals	1
Units	U/L
Correlation factor-Offset	0.0000
Correlation factor-Slope	1.0000

Range	
Gender	All
Age	
SERUM	#
URINE	
PLASMA	#
CSF	
Whole blood	
Gender	
Age	
SERUM	
URINE	
PLASMA	
CSF	
Whole blood	

Contaminants	
Please refer to r910 Carryover Pair Table	

Calibrators details	
Calibrator list	Concentration
Cal. 1/Blank	0
Cal. 2	*
Cal. 3	
Cal. 4	
Cal. 5	
Cal. 6	
	Max delta abs.
Cal. 1	0.002
Cal. 2	0.005
Cal. 3	
Cal. 4	
Cal. 5	
Cal. 6	
Drift limit [%]	0.80

Calculations	
Model	X
Degree	1

* Enter calibrator value
Editable by user