

XYLOSE Urine

Colorimetric determination with Phloroglucinol
on serum, plasma, blood and urine

100 tests

REF CM13-100T

PRINCIPLE

In an acid medium, phloroglucinol forms a red colored complex with pentoses. The color intensity is directly proportional to the concentration of xylose present in the sample.

REAGENTS

Kit components:

	REF CM13-100T	Quantity
REAGENT 1 (powder) Phloroglucinol	CM13-100TR1	10 vials
(* REAGENT 2 Acetic acid	CM13-100TR2	2 x 100 ml
(* REAGENT 3 Hydrochloric acid	7153R3	1 x 20 ml
STANDARD (Std) D (+) xylose 100 mg	CM13-100TR4	1 x 100 mg

STABILITY: stored at room temperature, tightly closed and protected from light, reagents are stable up to the expiration date on the label.

PREPARATION OF THE 10 mg/dl STANDARD

- Add to the STANDARD vial (100 mg) **exactly** 100 ml of Distilled water to obtain a Stock Standard Solution of 100 mg/dl. Mix gently until complete powder dissolution.
- Dilute 1:10 the Stock Standard Solution 100 mg/dl with Distilled water in to obtain the Standard 10 mg/dl.

This solution will be used in the calibration curves and can be stored in aliquots and frozen until use.

STABILITY: 6 months a -20.

PREPARATION OF THE CHROMOGENOUS REAGENT

INTERMEDIATE REAGENT

Pour 20 ml of Reagent 2 into one vial of Reagent 1. Close the vial with the cap and mix accurately, turning the vial upside down several times.
STABILITY: 1 week at 20-25°C.

CHROMOGENOUS REAGENT

Pour exactly 2 ml of Reagent 3 into the intermediate solution. Tightly close the vial and shake it gently.
The resulting mixture is enough for 10 tests and should be prepared just before its use.
STABILITY: 5 hours at room temperature.

SAMPLE

Urine of 5 hours after the intake of 0.45 g gaxilose.
Mix the 5-hour urine accurately, measure the volume, centrifuge a part of it.
STABILITY: 24 hours at 2-8°C, 8 hours at 20-25°C and 2 months at -20 °C or -70°C.

MANUAL ASSAY PROCEDURE

Wavelength: 554 nm (550 - 560)
Temperature: hot bain-marie
Optical path: 1 cm
Reading: against blank reagent
Method: colorimetric endpoint

PROCEDURE WITH URINE

Pipette into pirex glass tubes, labeled as follows:
B/R: blank reagent, S: sample, Std x: standard x (x is standard value in the calibration curve)

- Prepare standard curve for D-Xylose concentration pipetting from 0 to 100 µl of Standard Solution 10 mg/dl, as indicated in TABLE 1.
- Add 50 µl of distilled water to 50 µl of Sample Urine (See TABLE 1).
- Add 1.9 of Chromogenous Reagent to Sample Blank, Sample and Standards.

Table 1:

	SB	Xylose Standard Curve							S
Xylose 10 mg/dl (µl)	-	5	10	20	40	80	100	-	
Urine (µl)	-	-	-	-	-	-	-	50	
Distilled Water (µl)	100	95	90	80	60	20	-	-	
Chromogenous Reagent (ml)	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	
Xylose conc. (mg/dl)	-	0.25	0.5	1.0	2.0	4.0	5.0	X	

Mix well and dip the tubes in a hot bain-marie for exactly 4 minutes.

Cool under running water and mix.
Read the absorbances of the sample (As) and the standard(x) (Astdx) at 554 nm against the blank reagent.

CALCULATION

Construct a calibration curve as reported below.

- X-axis:** standard concentration in mg/dl (0.25; 0.5; 1; 2; 4; 8).
Y-axis: Standard Absorbance.
- Extrapolating the **X** sample values (in mg/dl) from the calibration curve.
- D-Xylose mg = **X** Sample Conc. (mg/dl) x dl urine

REFERENCE VALUES

ADULTS	
Test LacTEST 0.45 g	Urine Xylose (mg)
LacTEST 0.45 g	≥ 37.87

NOTES

- Reaction volumes can be proportionally changed.

DISPOSAL

The product must be used for professional assay only. Dispose of the product according to national/international laws

WARNINGS



REAGENT 1 WARNING: Causes skin irritation (H315). May cause an allergic skin reaction (H317). Causes severe eyes irritation (H319). May cause respiratory irritation (H335).



REAGENT 2 WARNING: Flammable liquid and vapor (H226). Causes severe skin burns and eyes damage (H314).



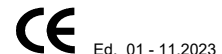
REAGENT 3 WARNING: Causes severe skin burns and eyes damage (314). May cause respiratory irritation (H335).

REFERENCES

Available upon request

KEY SYMBOLS

IVD	In Vitro diagnostic medical device
LOT	batch number
REF	catalogue number
	temperature limits
	use by
	caution
	read instructions for use



MANUFACTURER



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