(FOR RESEARCH USE ONLY. DO NOT USE IT IN CLINICAL DIAGNOSIS!)

D-Xylose Assay Kit

Catalog No.: BC00041

Size: 100T

Please read the instructions carefully before use. If you have any questions or need further help during experiment, please don't hesitate to contact us through the following methods:

✉ Email (Sale) order@enkilife.com

✉ Email (Techsupport) techsupport@enkilife.com

☎ Tel: 0086-27-87002838

Website: www.enkilife.com

Shelf life: Please refer to the label on the outer package.

Techsupport: In order to provide you with better service, please inform us the lot number on the label of the outer package.

Basic Information

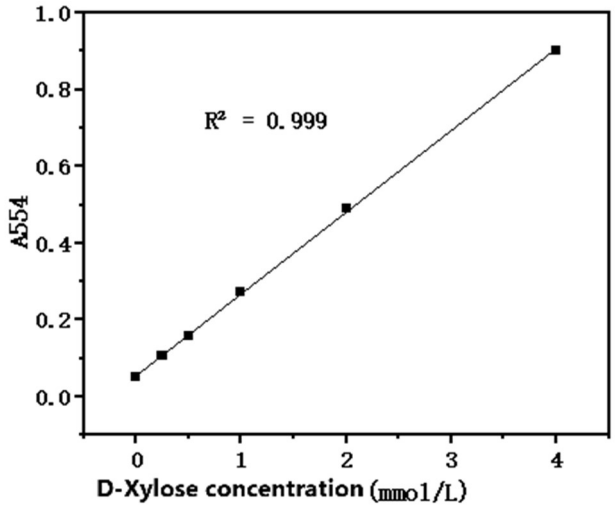
Product Name	D-Xylose Assay Kit
Detection Method	Colorimetric
Sample Type	Serum, Plasma, Urine,etc
Assay Type	Quantitative
Detection Instrument	UV spectrophotometer (554 nm)

Product Introduction

D-xylose is difficult to be broken down by the human digestive enzyme system. Saliva, gastric juice, pancreatic juice and small intestinal juice can hardly break down D-xylose, and its energy value is almost zero. Therefore, D-xylose can be used as a raw material for weight loss foods and blood sugar regulating foods.

Principle

In a strong acid solution, D-xylose is dehydrated to produce furfural, which reacts with phloroglucinol to form a pink compound, which is measured colorimetrically at a wavelength of 554nm and the D-xylose content can be calculated.



Components

Serial number	Components	Size(100T)	Storage
Reagent 1	Phloroglucinol Reagent	120ml x 3 bottles	-20℃, store at 2-8℃ away from light after opening.
Reagent 2	13.3mmol/L D-Xylose Standard	1ml x 2 bottles	-20℃, store at 2-8℃ away from light after opening.

Reagent 3	Standard Diluent	20ml x 1 bottle	-20℃, store at 2-8℃ away from light after opening.

Storage

The unopened test kit can be stored at -20℃ for 12 months. After opening, it can be stored at 2-8℃ away from light for 6 months.

Experimential Preparation

● Sample processing
Serum and plasma samples: They can be measured directly (if there are suspended matter, they can be measured after centrifugation).
Urine sample: It can be measured directly (if there is suspended matter, it can be measured after centrifugation).
Before the formal test, it is necessary to select 2-3 samples with large expected differences and dilute them into different concentrations for preliminary experiments. According to the results of the preliminary experiments and the linear range of this kit: 0.007~4mmol/L, please refer to the following table for dilution (for reference only):

D-xylose concentration (mmol/L)	Volume ratio of sample to diluent	Dilution multiple
<4	No dilution	1
4-40	1:9	10
40-400	1:99	100

Note: The diluent is physiological saline (0.9% Nacl) or PBS (0.01M, pH 7.4).

- Preparation of the assay kit

1. All reagents must be equilibrated to room temperature before testing.
2. Preparation of 1.33mmol/L standard:

Mix reagent 2 and reagent 3 in a volume ratio of 1:9 and store at 2~8℃ away from light for three months.

Operation process

1. Reagent blank tube: Take AmL of double distilled water and add it to a 10mL glass test tube.
Determination of blank tube: Take AmL of sample without taking D-xylose and add it to a 10mL glass test tube.
Standard tube: Take AmL1.33mmol/L D-xylose standard and add it into a 10mL glass test tube.

Test tube: Take AmL of D-xylose test sample and add it to a 10mL glass test tube.
(A is the sample volume = standard volume = double distilled water volume; serum reference volume: 0.03mL; urine diluted 10 times, reference volume is 0.05mL)
2. Add 3 ml of reagent 1 to each test tube in step 1 and vortex to mix.
3. Place in a 100℃ constant temperature water bath for 4 min, and immediately cool to room temperature under running water after taking out.
4. 554 nm, 1 cm optical path quartz cuvette, zeroed with double distilled water, and measured OD value.

Result calculation

D-xylose content (mmol/L) = △ A1/△ A2 xcxf
Notes:
△ A1: Determine OD value - Determine blank OD value
△ A2: Standard OD value - reagent blank OD value
C: Standard concentration (1.33mmol/L)
f: dilution factor of the sample before adding it to the detection system

Notes

1. Please read the instructions carefully and adjust the instrument before the experiment, and conduct the experiment strictly in accordance with the instructions.
2. Please wear lab coats and latex gloves for protection during the experiment.
3. The detection range of the kit is not equivalent to the concentration range of the analyte in the sample. If the concentration of the analyte in the sample is too high or too low, please dilute or concentrate the sample appropriately.
4. If the test sample is not among the sample types listed in the instructions, it is recommended to conduct a preliminary experiment to verify the effectiveness of the test.
5. **This experiment must be carried out in a glass test tube and cannot be carried out in an EP tube or other test tube.**
6. The water bath temperature is controlled above 95°C, and after heating in the water bath, it must be immediately cooled to room temperature under running water.