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α -Galactosidase (α-Gal) Activity Assay Kit

Catalog No.: BC00066

Size: 100T

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

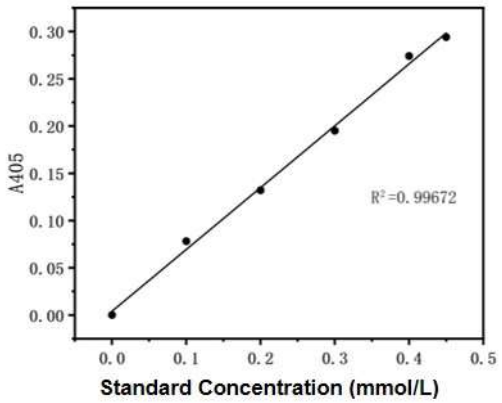
Product Name	α -Galactosidase (α-Gal) Activity Assay Kit
Detection Methods	Colorimetric
Sample type	Animal and plant tissues
Detection Type	Enzyme activity
Detection instrument and wavelength	Microplate reader (405 nm)

Product Introduction

α-Galactosidase (α-Gal) is an enzyme that can specifically hydrolyze the α-galactosidic bond at the end of the sugar chain in polysaccharides, glycolipids, and glycoproteins. This enzyme exists in humans, animals, plants, and microorganisms, and has broad application prospects in the fields of food, feed, and medicine.

Detection principle

α-galactosidase can catalyze the substances produced during the glycolysis of animal and plant tissues to form the final product, which has a maximum absorption peak at 405 nm. When this kit detects tissue samples, the total protein concentration needs to be determined. The BCA method (Cat. No.: BC00006) is recommended for animal tissue samples, and the Coomassie Brilliant Blue method (Cat. No.: BC00007) is recommended for plant tissue samples . The following standard curve is for reference only:



Product Composition

Serial Number	Product Name	Packing Specifications	Storage

		(100T)	
Reagent 1	Buffer	100ml	-20℃, can be stored at 2-8℃
Reagent 2	Substrate	powder	-20℃, can be stored at 2-8℃
Reagent 3	Accelerator	0.8ml/tube, 2 tubes	-20℃, can be stored at 2-8℃
Reagent 4	Color developer	13ml	-20℃, can be stored at 2-8℃
Reagent 5	10mmol standard solution	0.3ml	-20℃, can be stored at 2-8℃
Consumables 1	96-well ELISA plate	1 plate	RT
Consumables 2	96-well membrane	2 pieces	RT

Storage Conditions

The unopened test kit can be stored at -20℃ for 12 months, and after opening, it can be stored at 2-8℃ for 6 months.

Preparation before the experiment

Sample processing

Tissue samples: homogenize at a ratio of tissue sample mass (g): reagent volume (mL) = 1:9, centrifuge at 10,000 × g for 10 min at 4°C, take the supernatant for testing, and retain part of the supernatant for protein concentration determination.

· Preparation of the kit

1. Before testing, the reagents in the kit were equilibrated to room temperature.
2. Preparation of reagent 2 working solution: Take one vial of reagent 2 and add 1.3 mL of double distilled water to dissolve and mix. The unused reagent can be stored at -20°C for 4 weeks.
3. Preparation of the assay working solution: Mix reagent 1: reagent 2 working solution: reagent 3 in a volume ratio of 20:4:3. Unused reagents can be stored at 2-8°C away from light for one month.
4. Preparation of control working solution: Mix reagent 1 and reagent 3 in a volume ratio of 8:1. The unused reagent can be stored at 2-8℃ away from light for one month.
5. Dilution of 0.5 mmol/L standard solution: Take 0.05 mL of reagent V and add 0.95 mL of double distilled water to dilute. Place the diluted standard solution on ice and avoid light until use. Prepare and use immediately. It is valid within 8 hours.
6. Dilution of standards of different concentrations:

Number	①	②	③	④	⑤	⑥	⑦	⑧
Standard (mmol/L)	0	0.1	0.15	0.2	0.3	0.4	0.45	0.5
0.5 mmol/L Standard (μL)	0	40	60	80	120	160	180	200
ddH2O ((μL)	200	160	140	120	80	40	20	0

Operation Process

1. Standard wells: Take 10 μL of standard solutions of different concentrations and add them to the corresponding enzyme-labeled wells.
2. Assay wells/control wells: Take 10 μL of the sample to be tested and add it to the corresponding enzyme-labeled wells.
3. In (1), add 135 μL of assay working solution to the assay wells and standard wells, and add 135 μL of control working solution to the control wells.
4. The plate was shaken for 5 seconds, incubated at 37°C in the dark for 30 minutes, 100 μL of reagent IV was added to each well, the plate was shaken for 5 seconds, and the OD value of each well was measured at a wavelength of 405 nm using an ELISA reader.

The operation table is as follows:

	Standard well	Determination well	Control wells
Different concentrations	10	--	--
Sample to be tested (μL)	--	10	10
Assay working solution	135	135	--
Control working solution	--	--	135
Shake the plate for 5 seconds and incubate at 37°C in the dark for 30 minutes			
Reagent 4 (μL)	100	100	100
The plate was shaken for 5 seconds and the OD value of each well was measured by an ELISA			

Notes

1. The kit is for research use only. If it is used for clinical diagnosis or any other purpose, our company will not be responsible for any problems arising therefrom and will not bear any legal liability.
2. Please read the instructions carefully and adjust the instrument before the experiment, and conduct the experiment strictly in accordance with the instructions.
3. Please wear lab coats and latex gloves for protection during the experiment.
4. 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.
5. If the sample being tested 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.

6. The final experimental results are closely related to the effectiveness of the reagents, the relevant operations of the experimenter, the experimental environment and other factors. Our company is only responsible for the kit itself, not for the sample consumption caused by the use of the kit. Please fully consider the possible usage of the sample before use and reserve sufficient samples.