

XhoI Elisa Kit

Cat#: 8009031

[Product Name]

XhoI Elisa Kit

[Model & Specification]

Product Name	Cat No.	Size	Component No.	Component Name	Component Size	Quantity
XhoI Elisa Kit	8009021	96 T/Kit	8009031-1	XhoI Standard	10 µg/mL	1 bottle
			8009031-2	XhoI Detection Antibody (HRP labeled)	12 mL	1 bottle
			8009031-3	TMB Substrate	12 mL	1 bottle
			8009031-4	Stop Solution	12 mL	1 bottle
			8009031-5	Sample Diluent	50 mL	1 bottle
			8009031-6	Wash Buffer (20×)	50 mL	1 bottle
			8009031-7	Microtiter Plate (Coated)	96 T	1 plate

[Product Description]

This assay employs the quantitative sandwich enzyme immunoassay technique. A monoclonal antibody specific for XhoI has been pre-coated onto a microplate. Standards and samples are pipetted into the wells and any XhoI present is bound by the immobilized antibody. After washing away any unbound substances, an enzyme-linked monoclonal antibody specific for XhoI is added to the wells. Following a wash to remove any unbound antibodyenzyme reagent, a substrate solution is added to the wells and color develops in proportion to the amount of XhoI bound in the initial step. The color development is stopped and the intensity of the color is measured. And the residual degree of XhoI in the sample is measured.

Detection range: 0.125~4 ng/mL

Quantification limit: 0.125 ng/mL

Detection limit: 0.021 ng/mL

[Storage And Transportation]

Store at 2°C~8°C and transport on blue ice.

The unopened kit can be stored stably for 12 months at 2°C~8°C.

[Material And Equipment]

Microplate reader capable of detecting absorbance at 450 nm; micro-injector, pipette tip, and sampling tank; distilled or deionized water; vortex oscillator or microplate constant-temperature oscillator, etc.

[Reagent Preparation]

1. Bring the required reagents to room temperature ($25 \pm 3^{\circ}\text{C}$) before use. Determine the number of

wells to be used for the assay, remove the required number of microplate strips, reseal the remaining strips, and store at 2~8°C .

2. 1× Wash Buffer Preparation: Based on the volume of wash buffer required for this experiment, measure an appropriate amount of 20× wash buffer and dilute with deionized water at a 1:20 volume ratio, mix well, and set aside for use.

3. Standard Solution Preparation (Example):

Concentration of standard solution(ng/mL)	Volume of standard solution(μL)	Volume of diluent(μL)	Total volume(μL)	Final Concentration(ng/mL)	Remaining volume(μL)
10000	20	1980	2000	100	1980
100	20	480	500	4	250
4.0	250	250	500	2	250
2.0	250	250	500	1	250
1.0	250	250	500	0.5	250
0.5	250	250	500	0.25	250
0.25	250	250	500	0.125	500
0	/	300	300	0	300

[Experimental Procedure]

1. Prepare all reagents and working standards as directed in the previous sections.

2. Add 100 μL of standard solution or the test sample per well. Seal the plate with a cover or sealing film and incubate at room temperature (25 ± 3°C) with shaking at 400~500 rpm for 1 hour.

3. Discard the liquid from the wells, add at least 350 μL of 1× wash buffer to each well, wash each well, and tap the plate gently on clean paper to dry. Repeat this process three times.

Note: Do not let the plate wells dry excessively for a long time. Improper washing may lead to a higher CV value between replicate wells, and signal bias either high or low.

4. Add 100 μL of XhoI detection antibody (HRP-labeled) solution to each well. Seal the plate with a cover or sealing film and incubate at room temperature (25 ± 3°C) with shaking at 400~500 rpm for 30 minutes.

5. Discard the liquid from the wells, add at least 350 μL of 1× wash buffer to each well ,wash each well, and tap the plate gently on clean paper to dry. Repeat this process three times.

Note: Do not let the plate wells dry excessively for a long time.

6. Add 100 μL of TMB substrate to each well and incubate at room temperature (25 ± 3°C) for 20 minutes. Protect from light.

7. Add 100 μL of stop solution to each well, gently tap the plate to mix and stop the reaction.

8. Read the absorbance at a wavelength of 450 nm within 10 minutes after adding the stop solution.

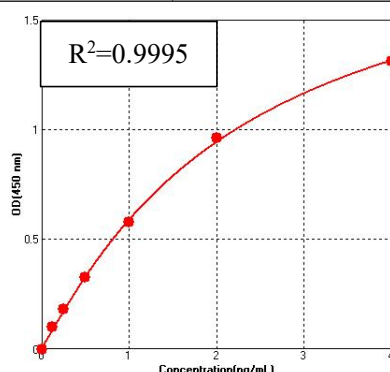
[Result Calculation]

It is recommended to generate a four-parameter curve with the log of the XhoI concentrations versus the O.D.

Table 1. Typical Standard Curve Data Table

Concentration of standard solution (ng/mL)	Absorbance		
	Measurement 1	Measurement 2	Mean
4.0	1.432	1.410	1.421
2.0	1.056	1.087	1.071
1.0	0.694	0.683	0.689
0.5	0.439	0.435	0.437

0.25	0.298	0.289	0.293
0.125	0.202	0.218	0.210
0	0.113	0.110	0.111



[Performance]

Detection Limit: 0.021 ng/ml.

Quantification Limit: 0.125 ng/ml.

Linearity: $R^2 \geq 0.98$.

Repeatability: testing three known concentration samples 20 times.

Intermediate Precision: testing three known concentration samples three times at different times and by different person.

Name	Repeatability (n=20)			Intermediate Precision (n=3)		
	Low	Medium	High	Low	Medium	High
Mean(ng/mL)	0.46	1.99	3.05	0.53	2.09	3.31
SD	0.017	0.079	0.259	0.025	0.049	0.255
CV (%)	3.7	4.0	8.5	4.7	2.3	7.7

Recovery: Assesses the recovery of XhoI added to different levels within the entire range of the assay in relevant matrices.

Average recovery (%) (n=3)	Recovery range (%)
105.9	96.2 ~ 117.6

[Notice]









1. This product is for research use only and is not intended for clinical diagnosis or treatment.
2. Reagents should be stored according to the conditions specified on the label and should be equilibrated to room temperature before use.
3. The pre-coated microplate should be equilibrated to room temperature before opening the packaging, and any remaining strips should be immediately returned to the packaging, resealed, and stored at 2~8°C. Remaining reagents should also be resealed and stored according to the conditions specified on the label.
4. XhoI standard solution and XhoI detection antibody (HRP-labeled) solution should be mixed well before use.
5. The residual liquid in the plate wells during the washing process should be dried by tapping on clean paper. The plate wells should not be excessively dried for a long time, as improper washing may lead to higher CV values between replicate wells or higher absorbance values for the blank (0 ng/ml), affecting result accuracy.
6. The TMB substrate should be a colorless, transparent liquid. If it appears light blue, it indicates that the solution has been contaminated and is not suitable for subsequent analysis.
7. Samples with extreme pH values (<5.0 or >8.5), or containing high salt, high polysaccharides, high urea, high organic solvents, and high detergent solutions, may lead to lower recovery rates.

8. Due to the complexity of biological sample matrices, it is recommended to include positive control test samples in each experiment to ensure the accuracy of the test and to use replicate wells for the test.

[Safety Precaution]

1. The stop solution is an acidic solution, and caution should be exercised when handling it.
2. Operators should wear personal protective equipment, such as lab coats, gloves, masks, and safety goggles.

[Description Of Product Symbol]

Product Symbol	Description	Product Symbol	Description
	Catalog Number		Batch Code
	Date of Manufacture		Manufacturer
	Temperature limit		Use-by date
	Consult instructions for use		Keep away from sunlight

[Company Information]

Manufacturer and after-sales service unit Name: Shenzhen Dakewe Bio-engineering Co., Ltd.

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