HA-Tag Rapid Competitive Assay Kit

DESCRIPTION

Product Name

HA-Tag Rapid Competitive Assay Kit

Packaging specifications

Cat No.	Size
RA10088	10T
RA10088	100T

Intended Use

For detection of HA-Tag protein concentration in prokaryotic and eukaryotic expression systems.

Test Principle

This reagent adopts the latex microsphere-labeled immunochromatography method and competitive principle to detect HA-Tag-containing proteins in samples. During testing, HA-Tag in the sample binds to the labeled antibody to form an antigen-antibody complex, which migrates to the Test Zone (T Line) via capillary action. The remaining unbound labeled antibody binds to the coated antigen to form a red band. Latex microsphere-labeled chicken IgY migrates to the Control Zone (C Line) and binds to the coated substance to form a red band. The higher the concentration of HA-Tag in the sample, the lighter the red band at the Test Zone, showing an inverse relationship between concentration and color development intensity.

Kit Components

Detection Card, Running Buffer, Instruction Manual

Storage and Shelf Life

Unopened reagent should be stored sealed and dry at 2–30°C. Shelf life: 12 months.

Expiration date is indicated on the label. It is recommended to use the reagent and running buffer immediately after opening.。

Detection Method

1. Read this instruction manual carefully before use.
2. Before testing, allow refrigerated test samples to equilibrate to room temperature.
3. Verify that the product information and lot number on the reagent card match the outer packaging.
4. Tear open the aluminum foil pouch, remove the detection card, and place it on a level bench top.
5. Using a pipette, transfer 80 µL of running buffer into an empty centrifuge tube.
6. Using a pipette, transfer 20 µL of sample into the running buffer tube. Mix for 10 seconds using a vortex mixer.
7. Using a pipette, take 70 µL from the prepared sample/running buffer tube and add it to the sample well of the detection card.
8. Read the results after 15 minutes.。

Notes:

Pre-dilution of test sample:

If the concentration of the target tagged protein is known, directly dilute the sample with the provided running buffer to 5 µg/mL.

If the concentration is unknown, pre-dilute the test sample derived from a prokaryotic expression system by 25-fold, and pre-dilute the test sample derived from a eukaryotic expression system by 5-fold using the provided running buffer. Vortex to mix.

If the sample after pre-dilution produces a test line intensity outside the linear range of the reagent, further adjust the dilution factor until the test line intensity falls within the linear range.

Detection of low-abundance recombinant tagged proteins:

Dilution may reduce the concentration below the lower detection limit of this product, potentially causing false negative results. In such cases, the undiluted original sample may be used for testing; however, the sample matrix may interfere with the test. A negative control with the same matrix as the sample must be included. Determine whether the tagged protein is expressed by comparing the relative intensity of the test line.

Product Performance Characteristics

1. Detection range: 0.5–10 µg/mL. Color reference as follows:

0µg/mL
0.5µg/mL
1µg/mL
2.5µg/mL
5µg/mL
10µg/mL

2. Repeatability: Using a colloidal gold immunochromatography analyzer to test the company's repeatability reference, the repeatability CV ⩽ 15%.
3. Accuracy: Using a colloidal gold immunochromatography analyzer to test the company's accuracy reference, the relative deviation is within ±15%.
4. Compatibility with common detergents and salts:

Name	Maximum Concentration	Name	Maximum Concentration
NaCl	0.5M	EDTA	5mM
Urea	0.4M	Glycerol	10%
TritonX-100	1%	KCl	0.5M
Tween-20	1%	CHAPS	1%
SDS	0.2%	RIPA	100%
NP-40	1%	Imidazole	0.5M

Precautions

1. This reagent is intended only for the detection of HA-Tag protein products. Do not use expired product.
2. The reagent is for single use only.
3. This reagent provides semi-quantitative detection and should not be used for precise quantification.
4. Other factors may cause incorrect test results, including technical reasons, operational errors, and other sample factors.
5. The test results from this reagent are for auxiliary purposes only and should be interpreted in conjunction with the actual situation. If the test results are abnormal, further investigation is required.
6. Avoid vibration and keep the detection card stationary during the test.
7. Do not mix components from different kit lots.
8. If the control line does not appear, the test result is invalid, as shown in the figure below.