

XpressCheck Biotin Tag test strip

Proteins such as antibodies are often biotinylated for various applications. The XpressCheck Biotin Test Strip is a competitive lateral flow assay designed for the rapid detection of protein biotinylation. The assay features a simple procedure and can be completed within 3 minutes without the need for any instruments.

The strip can be applied directly to samples and is compatible with common buffers such as water, PBS, Tris, and HEPES. Please note that most cell culture media contain free biotin and therefore cannot be used directly with this assay. By testing serially diluted samples, the assay can also be performed in a semi-quantitative manner to estimate the molar concentration of biotin. The detection limit of the strip is approximately 0.2 μM , corresponding to about 1 $\mu\text{g}/\text{mL}$ biotinylated BSA with an average labeling ratio of 12.

XpressCheck is a patent-pending technology that offers improved sensitivity, compatibility, ease of use, and shelf life compared with traditional lateral flow products.

Contents and Storage


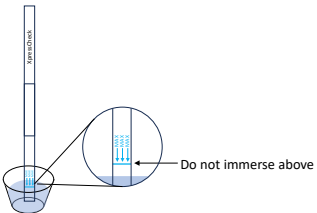
CATALOG NUMBER	UNIT	STORAGE
XC-BIO-25	25	Room temperature Keep dry
XC-BIO-100	100	Room temperature Keep dry

Precautions

- There are two lines on the strip: the control line (C) and the test line (T). The C line is the upper line and is located approximately 37 mm from the bottom of the strip. The T line is the lower line and is located approximately 32 mm from the bottom of the strip.
- Reading the results after more than 15 minutes is not recommended.
- The detection limit of 0.2 μM corresponds to approximately 1 $\mu\text{g}/\text{mL}$ biotinylated BSA with an average labeling ratio of 12.
- For more accurate quantification, first evaluate the strip using standard samples with known concentrations of the same protein, then compare the results with the test sample.

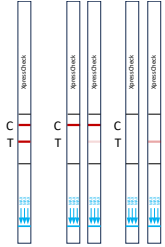
Test Procedure

Rapid Biotinylation detection

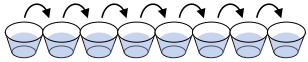
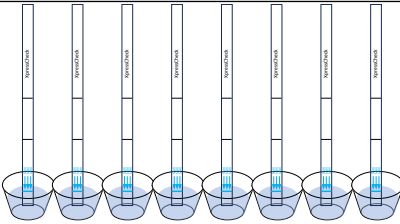
Step	Description	Illustration
1	Add 100 μL sample to a well (e.g. a well of a 96-well plate) or a vial. (Dilute the sample with water or a buffer (e.g. PBS) if desired.)	
2	Put the test strip into the vial, with the arrow label side immersed in the sample.	

Continue on the back side

Continue from the front side

Step	Description	Illustration
3	Wait until the control line (C) shows up, usually within 3 minutes	
4	<p>Read result</p> <p>Negative: Both control (C) and test (T) lines are clear. The test line intensity is about equal to or stronger than the control line.</p> <p>Positive: The test line (T) intensity is much weaker than the control line (C), or only the control line (C) is visible.</p> <p>Invalid: No Control line (C) is visible.</p>	 <p>Negative Positive Invalid</p>

Semi-quantitative biotin labeling ratio measurement

Step	Description	Illustration
1	<p>Make serial diluted samples, 100 μL each.</p> <p>(For unknown samples, it is recommended to start with a 10\times serial dilution.)</p>	
2	Put the test strips into the wells, with the arrow label sides immersed in the samples.	
3	Wait until the control lines show up, usually within 3 minutes	
4	<p>Read result</p> <p>The last sample showing a positive result (arrow pointed) contains about 0.2 μM biotin.</p>	