CYTODIAGNOSTICS

PRODUCT DATA SHEET

Biotin Detection Lateral Flow Assay Kit

Catalog No. LF-17-10

Assay Kit Description

The Biotin Detection Lateral Flow Assay Kit is a 15-minute assay used for the validation of biotinylated gold, silver, and NanoUrchin conjugates.

The kit is designed to semi-quantitatively determine the amount of biotin that has been successfully coupled to the surface of nanoparticles.

Kit Components

- 10 Lateral Flow Dipsticks
- 15 mL Sample Dilution Buffer
- 1.5 mL Lateral Flow Assay Buffer

Storage

Store at 2-8° C. Stable for at least 3 months if stored as specified.

Product Safety and Handling

This product is for R&D use only, not for use in diagnostic procedures. Please review the safety datasheet (SDS) available online for proper safety and handling procedures.

Sample Dilution

Gold nanoparticle samples should typically be diluted to an optical density of 10 for use in this assay.

Different optical densities may be tested in cases where loading of biotin on the nanoparticle surface is either very low or high.

Test Procedure

1. Transfer 10 µL of the gold conjugate sample into the well.
2. Add 100 µL of Lateral Flow Assay Buffer into the same well and gently pipette up and down to homogenize.
3. Place a lateral flow dipstick with the arrows pointing downwards into the sample.
4. Incubate for 15 minutes.
5. Remove the lateral flow dipstick from the well and read test outcome.

A positive result for the presence of biotin on the nanoparticle surface will be indicated by the emergence of one or multiple bands. The positions of the band(s) will indicate the relative amount of biotin that has been successfully conjugated onto the nanoparticle surface (Figure 1). A highly active sample will have a strong lower band, while a sample with lower biotin activity will have an upper band. It is not uncommon to have multiple bands appear, it simply indicates that small amounts of the conjugate were captured at that position before migrating further up the strip.

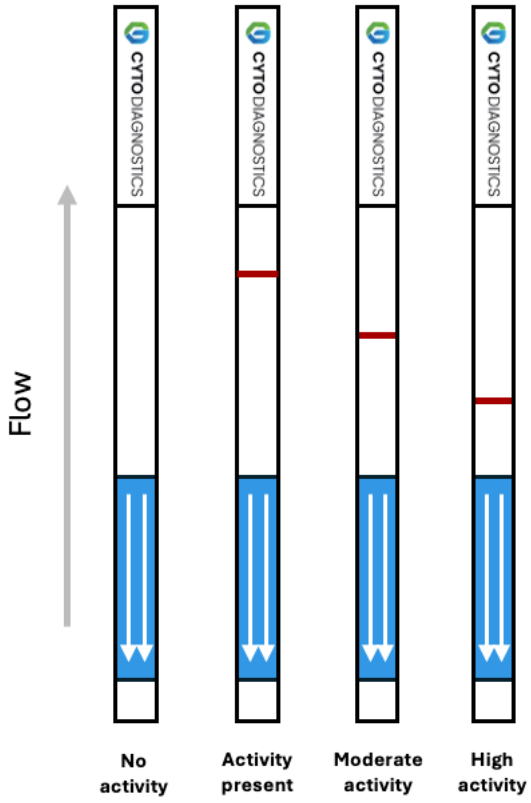

***Figure 1**. Potential results of a biotinylated gold nanoparticle conjugate. The relative amount of biotin on the surface of the conjugates is indicated by the position of the bands.*

Canada, Europe, Asia, Pacific and Africa
919 Fraser Drive, Unit 11, Burlington, ON Canada L7L 4X8
Tel: 866-344-3954 Fax: 289-204-9100
www.cytodiagnostics.com

United States, Mexico, South and Central America
5867 South Garnett Road, Tulsa, Oklahoma 74146 USA
Tel: 866-344-3954 Fax: 289-204-9100
www.cytodiagnostics-us.com