



Aquagenx® *E. coli* Well Water Test Kit Presence/Absence (P/A) Test Instructions for Use

Overview

The Aquagenx *E. coli* Well Water Test Kit detects *E. coli* and Total Coliform bacteria in a 100 mL well water sample. The US EPA says there must be zero *E. coli* (absence) in 100 mL water samples to be considered safe to drink. *E. coli* is the most specific indicator of fecal bacteria in drinking water.



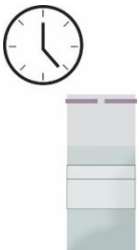
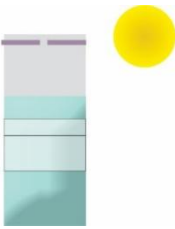


Shelf Life of Growth Medium

Up to three years after date of manufacture when stored properly. Expiration date is printed on growth medium packet.

Storage of Growth Medium

39°-77°Fahrenheit (4-25° Celsius) in a dry environment. Growth medium can be stored in a refrigerator. Do not freeze the growth medium.

Testing Procedure

<p>STEP 1</p> <p>Collect 100mL sample with Thio-Bag. Pour out excess water if you fill beyond 100mL fill line. The white tablet neutralizes residual chlorine in sample if present and will dissolve.</p> 	<p>STEP 2</p> <p>Pour powder medium into sample. Gently swirl bag and squeeze clumps of powder to dissolve.</p> 
<p>STEP 3</p> <p>Incubate sample 24-48 hours.</p> 	<p>STEP 4</p> <p>Determine test results.</p> 
<p>STEP 5</p> <p>Decontaminate sample with 1 tsp liquid bleach.</p> 	<p>STEP 6</p> <p>Dispose of Thio-Bag in solid waste.</p> 

Incubation Periods at Ambient Temperature

95-98°F: Incubate 20 hours

87-93°F: Incubate 24-30 hours

77-86°F: Incubate 40-48 hours

Below 77°F: Incubate in a portable incubator at 95-98°F for 24 hours or put in or near another heat source for 48 hours. Temperature should not exceed 98°F.

See “Incubation Period Guidance”: <https://www.aquagenx.com/product-documents/>

Ambient Light Color-Change Test Results

Color in Thio-Bag	Blue/Blue Green in ambient light	Yellow/Yellow Brown in ambient light
<i>E. coli</i>	Positive (Presence)	Negative (Absence)
Total Coliforms	Positive (Presence)	Negative (Absence)*

Positive *E. coli* test results include:

- Any trace of blue/blue-green, such as a single speck of blue/blue-green or a streak of blue/blue-green
- Blue/blue-green sediment at the bottom of the Thio-Bag
- The shade or intensity of blue does not matter

Negative *E. coli* test results include:

- Any shade of yellow/yellow brown. The shade or intensity of yellow does not matter.

Summary of ambient light test results

- Blue/blue-green = positive for *E. coli* and Total Coliforms (Presence)
- Yellow/yellow-brown = negative for *E. coli* and Total Coliforms (Absence)

Decontaminate sample

- Add 1 teaspoon of liquid bleach (NaOCl) to Thio-Bag.
- After 30 minutes, pour contents into a sink, toilet or hole in ground and safely dispose of the empty Thio-Bag with solid waste.

*Some negative test results (yellow) for Total Coliforms in ambient light might contain Total Coliform bacteria that aren't detectable in ambient light. To determine this, you can shine a UV light (365nm) in a dark environment on the sample to see if the sample fluoresces blue, indicating Total Coliforms are present. However, this is not particularly useful information for two reasons: 1) You already know the sample is negative for *E. coli*, the most important bacteriological indicator for safe drinking water, and; 2) Total Coliforms are a large group of bacteria, many of which are not harmful or fecal bacteria. Total Coliform test results only provide a general sanitary assessment of the water.