



## 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.



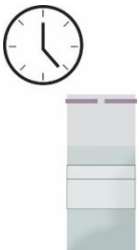
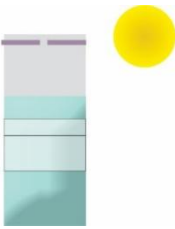


### Shelf Life of Growth Medium

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><b>STEP 1</b></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><b>STEP 2</b></p> <p>Pour powder medium into sample. Gently swirl bag and squeeze clumps of powder to dissolve.</p> 
<p><b>STEP 3</b></p> <p>Incubate sample 24-48 hours.</p> 	<p><b>STEP 4</b></p> <p>Determine test results.</p> 
<p><b>STEP 5</b></p> <p>Decontaminate sample with 1 tsp liquid bleach.</p> 	<p><b>STEP 6</b></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-documentation/>

## 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.