How to use SensiMedia for E. coli Detection

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1. General Description

This SensiMedia is designed to detect the presence of E. coli in a sample. MUG(4-methylumbelliferyl-8-D-glucuronide) is added to the composition of liquid medium so that if sample contains E. coli, the broth emits light-blue fluorescence under Ultra-Violet excitation light.

2. Detection Procedure

Add sample ≦5ml	<u>Add sample</u> Open a cap of SensiMedia and add ≤ 5 ml of sample. Close a cap and place the SensiMedia in an incubator.
Incubate	Incubate
43 degrees C	43 degrees C.

3. Detection Criteria

The performance characteristic of liquid medium is shown in graph below. Refer to it and set up a protocol for the test. When E. coli is detected, the color of CO2 sensor turns into yellowish transparent and the broth emits light-blue fluorescence under Ultra-Violet excitation light. When color of CO2 sensor remains dark blue, no E. coli is in the sample. If sensor turns into yellowish transparent and if the broth does not emit fluorescence under Ultra-Violet light, then no E. coli is in the sample. (Klebsiella might be detected.)



E. coli Identification Procedure

When the color of CO2 sensor turns into yellowish transparent, perform the following MUG identification test.

MUG Identification Test

Irradiate ultraviolet light to SensiMedia. If E. coli exist in it, it glows in light blue.



Kovac's Reagent Test Procedure

To make sure further, perform the following procedure.

Indole Identification Test

Add Reagent	When CO2 sensor turns transparent within 20 hours (protocol), then open a cap of SensiMedia and add 0.5ml of Kovac's reagent.
Test Criteria	After 1 minit, observe the color of top reagent layer of broth.Red or Dark Red : Positive Indole ReactionYellow: Negative Indole Reaction

Note : Perform Indole Identification test after MUG Identification test.

Test result interpretation may become difficult when Kovac's reagent and media are mixed.

 $Reference: Reagent \ Manufacturer \ and \ Price$

• DADE BEHRING Kovac's Reagent 30ml Cat.# B1010-41A 2,100yen