

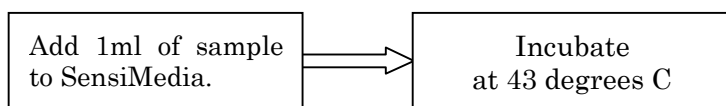
## How to use SensiMedia for E. coli Detection

MicroBio Corporation

### 1. General Description

This SensiMedia is designed to detect the presence of *E. coli* in a sample. MUG (4-methylumbelliferyl- $\beta$ -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

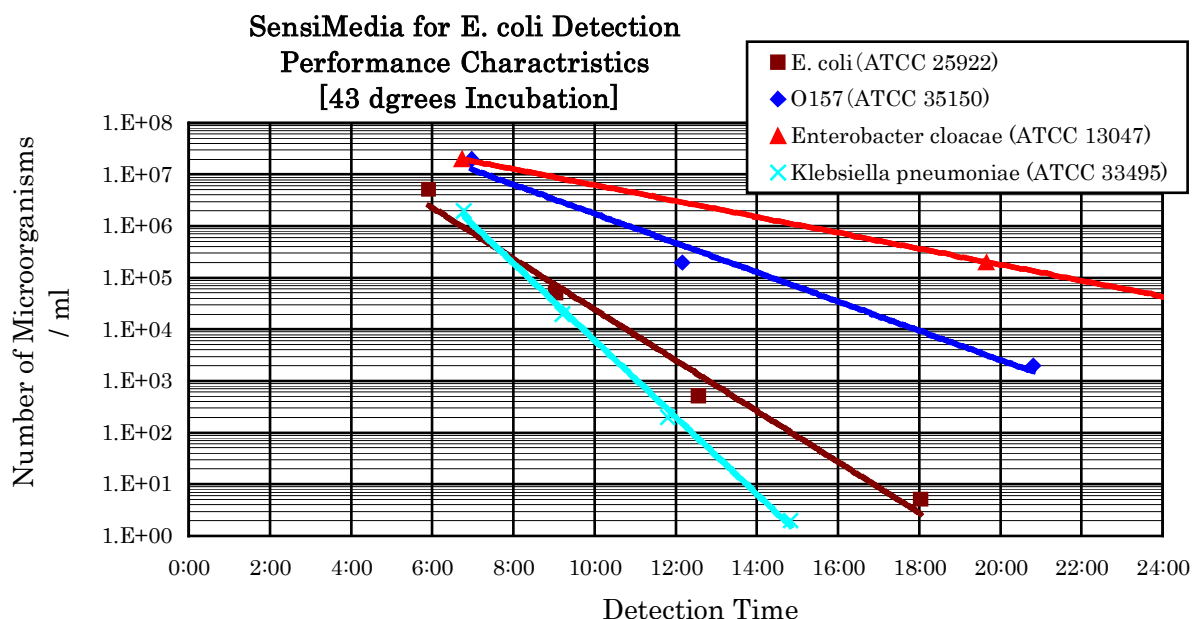
Open a cap of SensiMedia and add 1ml of sample. Close a cap and place the SensiMedia in an incubator.

#### Incubate

Incubate the sample added SensiMedia for 20 hours under the temperature of 43 degrees C.

### 3. Detection Criteria

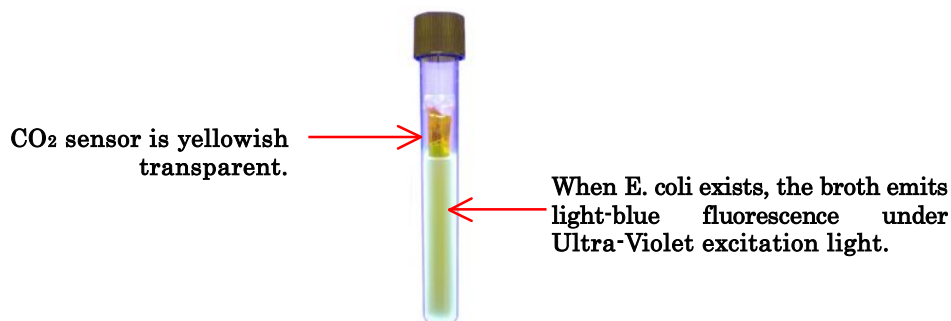
The performance characteristic of liquid medium is shown in graph below. Refer to it and set up a protocol for the test. When *E. coli* is detected, the color of CO<sub>2</sub> sensor turns into yellowish transparent and the broth emits light-blue fluorescence under Ultra-Violet excitation light. When color of CO<sub>2</sub> 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 CO<sub>2</sub> sensor turns into transparent within 18 hours of incubation, perform the following MUG identification test.

### MUG Identification Test



### Indole Identification Test

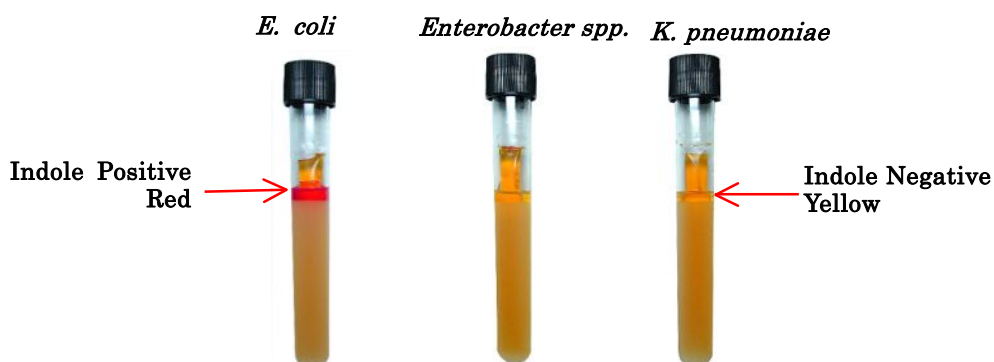
Add Reagent	When CO <sub>2</sub> sensor turns transparent within 18 hours (protocol), then open a cap of SensiMedia and add 0.5ml of Kovac's reagent.
Test Criteria	After 1 minit, observe the color of top reagent layer of broth. Red or Dark Red : Positive Indole Reaction Yellow : Negative Indole Reaction

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



Microorganism	CO <sub>2</sub> Sensor (Growth)	MUG	Indole Reaction
<i>E. coli</i>	Yellowish transparent	+	+
<i>K. pneumoniae</i>	Yellowish transparent	-	-
<i>Enterobacter spp.</i>	>>18 hours	-	-
<i>E. coli</i> O157	>>18 hours	-	+
<i>Salmonella spp.</i>	>>18 hours	-	-