

## **FTM - Fluid Thioglycolate Medium**

Tests the oxygen requirements of different microorganisms.

### **Intended Use:**

Characterizes microbes according to their oxygen requirements

- Obligate aerobes
- Facultative anaerobes
- Obligate anaerobes

### **Principle:**

Various types of bacteria require various oxygen (or oxygen-free) environments to grow in.

### **Test Procedure:**

1. Dilute your organism in a tube of sterile water to obtain a turbidity equivalent to the 0.5 McFarland test standard. Hold your diluted tube and the 0.5 McFarland test standard against the black-lined McFarland reference card to accurately rate the turbidity.
2. Using a sterile 1mL pipette, place 1 mL of organism into the middle of the tube.
3. Cap tightly; do not jostle.
4. Incubate for 24 hours at 37°C.

### **Results:**

- Strict (obligate) aerobes grow at the surface of the medium where there is a high concentration of oxygen.
- Obligate anaerobes grow near the bottom of the broth tube where there is no oxygen.
- Facultative anaerobes grow best where more oxygen is present, but growth will occur throughout the broth tube.