**Multiple Enzyme Substrate Medium**

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| **Product No.** | **Product Category** | **Specification** |
| CRM020B | Dehydrated Culture Medium | 500g/bottle |

**Intended Use**

For the determination of total bacterial count in drinking water and water sources.

**Principle and Interpretation**

Glucose, peptone, yeast extract, and anhydrous magnesium sulfate provide carbon/nitrogen sources, vitamins, and growth factors.4-Methylumbelliferyl phosphate (MUP) and 4-Methylumbelliferyl-β-D-glucoside (MUG) act as chromogenic enzyme substrates.

**Formulation**

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| **Ingredients** | **/liter** |
| Glucose | 1.25 g |
| Anhydrous magnesium sulfate | 0.2 g |
| Peptone | 5.0 g |
| Yeast extract | 3.5 g |
| 4-Methylumbelliferyl phosphate (MUP) | 0.0375 g |
| 4-Methylumbelliferyl-β-D-glucoside (MUG) | 0.03 g |
| pH 7.0±0.2 at 25°C | |

**Preparation**

Weigh 1.0 g of the medium and dissolve in 100 mL of purified water.Stir until fully dissolved.Filter-sterilize using a 0.22 μm membrane filter.Store at 2–8°C until use.

**Quality Control**

Cultural characteristics observed after incubation at 35-37°C for 24 hours

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| **Quality control strains** | **Approx. Inoculum(CFU)** | **Characteristics** |
| *Escherichia coli* ATCC 25922 | 10-100 | Turbid growth; fluorescence under 366 nm UV light |
| *Staphylococcus aureus* ATCC 6538 |

**Storage and Shelf Life**

2-8℃，Keep container tightly closed, avoid direct sunlight.

Use before expiry date on the label.

**Precautions**

1. When weighing the dehydrated medium, please wear masks to avoid causing respiratory system discomfort

2. Keep container tightly closed after using to prevent clumping.

**Waste Disposal**

Microbiological contamination was disposed by autoclaving at 121°C for 30 minutes.

**Revision**

On June 14, 2024