

# Colitech<sup>®</sup> Coliform Group

## Enzyme Substrate Detection Reagent

### User's Manual

**Character** This product is white or light yellow granules

**Clarification degree** Colorless or slightly yellow

**pH** 7.0 ~ 7.6

**weight** 2.7 ± 0.5g

**Storage** Long term storage: drying, sealing, avoiding light and storage at 4 ~ 8 °C.

**Term of validity** 1 years

#### Working principle

In the water samples containing total coliform bacteria, the target bacteria were cultured in the ONPG-MUG medium at 36 ± 1 °C. The specific enzyme beta-galactosidase produced by the total coliform bacteria can decompose the color source substrate of the ONPG-MUG medium, which makes the culture medium yellow; meanwhile, Escherichia coli produces a specific beta-glucuronase to decompose the fluorescent substrate MUG in ONPG-MUG medium and produce characteristic fluorescence. The same principle, the heat tolerance coliform group (fecal coliform group) will decompose the color source substrate ONPG in the ONPG-MUG medium at 44.5 ± 0.5 °C, making the medium yellow.

#### Packaging specification

100 pieces / box

#### Usage method

##### Qualitative detection

**Step 1** Add reagent in 100ml water sample, dissolve it, and culture 24h at 36 ± 1°C

**Step 2** Read result

Colorless = negative

Yellow = total coliform positive

Yellow + fluorescence = Escherichia coli positive

Note: the heat tolerant coliform group (fecal coliform) needs to be cultured at 44.5 ± 0.5°C 24h, and yellow is positive.

##### Quantitative detection

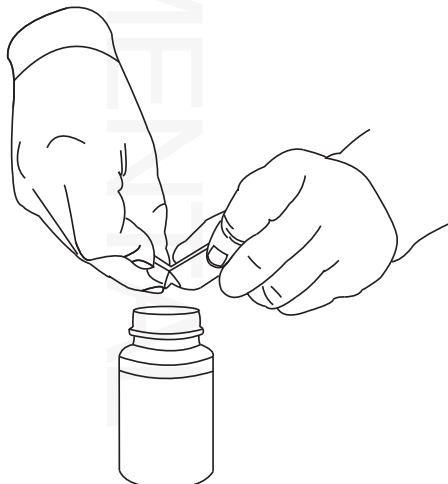
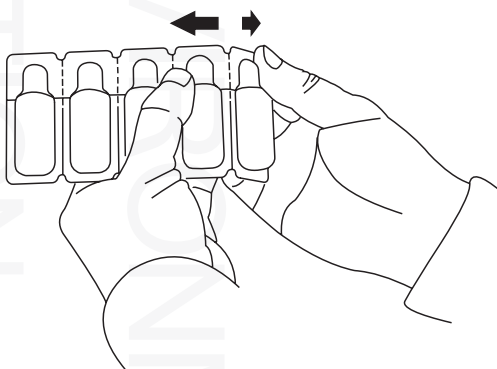
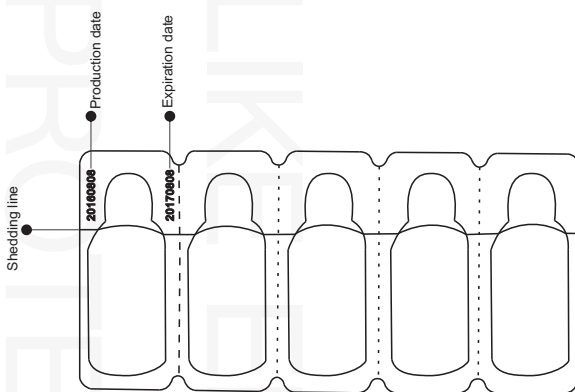
**Step 1** Add reagent in 100ml water sample, dissolve it.

**Step 2** Pour into the 51 or 97 well tray

**Step 3** Use program controlled quantitative sealer to seal the well tray, and culture 24h at 36 °C

**Step 4** Number the positive wells, and check the corresponding MPN table.

Note: the heat tolerance coliform group (fecal coliform group) needs to be cultured at 44.5 ± 0.5°C 24h, and the Yellow well is positive



Please read the instructions carefully and use it