

## 肠杆菌科测试片

### 使用说明书

产品名称	产品编号	包装规格
肠杆菌科测试片	HP013	20片/包

#### 【产品简介】

Handy plate® 肠杆菌科测试片为预制备的即用型培养基产品，含有标准的培养基、冷水凝胶、pH指示剂和显色指示剂。本产品可用于食品和饮料中肠杆菌科的计数。

#### 【使用说明】

##### 1. 样品制备

称取样品 25 g(mL) 放入含有已灭菌的 225 mL 缓冲蛋白胨水（或磷酸盐缓冲液、生理盐水）的无菌均质杯或均质袋内，均质器混匀 1 min-2 min 制成 1:10 的样液，必要时用无菌 1 mol/L NaOH 或 1mol/L HCl 溶液调节样液 pH 至 6.8-7.2。用 1mL 无菌吸管或移液器吸取 1:10 样液 1 mL，注入含有 9 mL 稀释液的试管内，振摇后成为 1:100 的样液，以此类推，制备 10 倍系列稀释的样液，每次稀释完成须更换吸管。

##### 2. 接种

根据对样品污染状况的估计，选择 2-3 个适宜的连续稀释度样液进行检测。将肠杆菌科测试片置于平坦实验台面，揭开覆膜，用无菌吸管吸取 1 mL 样液滴加到测试片中央，缓慢盖上覆膜，使样液扩散并重新形成凝胶，轻压以赶走气泡。

（边缘少量气泡不影响观察结果。待样液扩散吸收至整个培养区域，即可移动测试片。）

##### 3. 培养

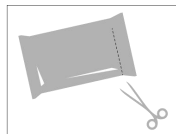
将测试片正面朝上，水平放置于恒温培养箱中， $36 \pm 1^\circ\text{C}$  条件下培养 18-24 h，测试片堆叠最多不超过 20 张。

##### 4. 判读

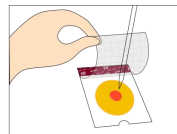
计数红色菌落并伴有气泡、周围有黄色酸环的菌落，不论大小和清晰度。合适的计数范围在每片 15 -150 CFU。当菌落数大于 150 CFU 时，如要估算菌落数，可

选择一个或多个代表性方格，计算单个格子平均菌落数后乘以 20，即为估算的肠杆菌科菌落数。若整个培养区域呈黄色，有许多红色小点或小气泡的情况，可能是菌浓度过高，需对样品进一步稀释以获得确切的计数。如需分离菌落进行进一步分析，揭开覆膜用接种针将菌落挑出使用即可。

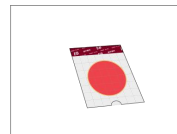
#### 【操作图解】



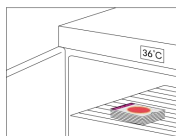
1.用剪刀沿包装虚线剪开，取出测试片。



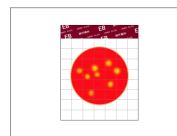
2.水平放置测试片，揭开覆膜，将 1mL 样液加在测试片中。



3.缓慢盖上覆膜，轻压以赶走气泡。



4.将测试片正面朝上，放置于恒温培养箱中， $36 \pm 1^\circ\text{C}$  培养 18-24 h，测试片堆叠不应超过 20 张。



5.根据判读手册判读测试片上是否有目标菌生长，对菌落进行计数。



扫描二维码  
观看操作视频

#### 【储存条件与保质期】

2-8 °C 密封储存，有效期为 18 个月。

已打开包装未使用的测试片装回包装袋中，折叠后用包装袋内的不干胶贴密封，一旦开封，尽快使用。储存时间不超过 4 周为宜。

#### 【废弃物处置】

测试片在使用之后可能包含微生物，需在  $121^\circ\text{C}$  30 min 高压蒸汽灭菌处理后严格按照规定的方式处理。

## Enterobacteriaceae Count Plate

Type of Product	Product No.	Packaging Specifications
Enterobacteriaceae Count Plate®	HP013	20 plates/pack

### 【Usage】

Handy Plate® Enterobacteriaceae count Plates are pre-prepared, ready-to-use culture media products containing standard culture medium, cold-water-soluble gelling agent, pH indicator and colorimetric indicator. This product can be used for enumeration of Enterobacteriaceae in food and beverages.

### 【Instruction】

#### 1. Sample Preparation

Place 25 g (mL) of sample into a sterile homogenizing cup or bag containing 225 mL of buffered peptone water (or phosphate buffer, physiological saline). Homogenize for 1-2 min to prepare a 1:10 sample solution. Adjust the pH of the sample solution to 6.8-7.2 with sterile 1 mol/L NaOH or 1 mol/L HCl solution If needed. Use a 1 mL sterile pipette or tips to transfer 1 mL of the 1:10 sample solution to a test tube containing 9 mL of diluent. Shake to obtain a 1:100 sample solution. Prepare 10-fold serial dilutions of the sample solution. Replace the pipette after each dilution.

#### 2. Inoculation

Based on the estimated contamination level of the sample, select 2-3 dilutions for testing. Place a *Enterobacteriaceae* count plate horizontally, peel off the upper film, and use a sterile pipette to drop 1 mL of the sample solution onto the center of the plate. Gently lower the upper film to allow the sample solution to spread and reform into a gel and press lightly to expel bubbles.

(A few bubbles at the edges will not affect the results. Wait until the liquid fully diffuses before moving the plate).

#### 3. Incubation

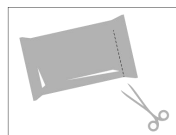
Incubate plates horizontally with front side up at  $36 \pm 1^\circ\text{C}$  for 18 – 24 h. Do not stack more than 20 plates.

#### 4. Interpretation

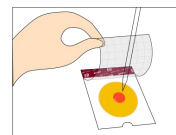
Count red colonies with gas bubbles and yellow acid rings, regardless of the size and clarity. The optimal counting range is 15–150 CFU.

If colony count >150 CFU, estimate by counting representative grids and multiply by 20. If the whole plate is yellow with tiny red dots or bubbles, further dilute the sample solution. For further analysis of isolated colonies, please pick up the colonies for use.

### 【Process Diagram】



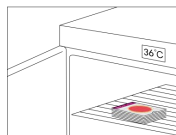
1. Cut along the dotted line with scissors and take out Handy plate.



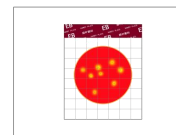
2. Place a Handy plate horizontally, peel off the upper film, and drop 1 mL of sample solution to the plate.



3. Gently lower the upper film and press lightly to expel bubbles.



4. Incubate plates horizontally with front side up at  $36 \pm 1^\circ\text{C}$  for 18 – 24 h. Do not stack more than 20 plates.



5. Determine whether the target organism has grown on Handy plate according to the interpretation manual, and count the colonies accordingly.



Note: Scan the QR code on the left to watch the operation video.

### 【Storage and Shelf Life】

Store sealed at 2-8°C, valid for 18 months.

Put the unused Handy plates back into the packaging bag, fold it and seal it with a self-adhesive sticker. Once opened, use as soon as possible. Storage time shall not exceed 4 weeks.

### 【Waste Disposal】

Handy plate may contain microorganisms after use and must be autoclaved by high pressure steam at 121°C for 30 min and then handled in strict accordance with regulations.