Membrane Filtration Method Protocol

Kikkoman Biochemifa Company

Note: Users need to verify the equivalence to the reference method.

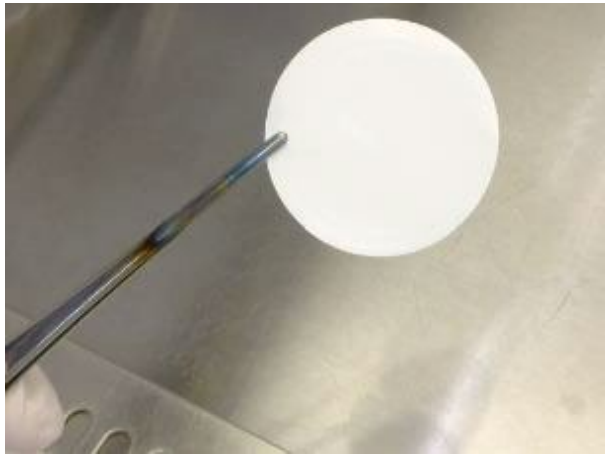
0. Notes

- This protocol uses Easy Plate instead of agar medium for cultivation, which is typically used in the standard membrane filtration method. Therefore, you can use the same equipment and instruments as in the standard membrane filtration method.

- Reference information:
  The filter pore size of the membrane filter typically used in the standard membrane filtration method is 0.45 μm. In this protocol, you can generally use this filter pore size.

- Notes:
  - As this is a protocol based on the standard membrane filter method, please adjust accordingly depending on your experimental requirements.
  - Users need to verify the equivalence to the reference method.

1. Equipment

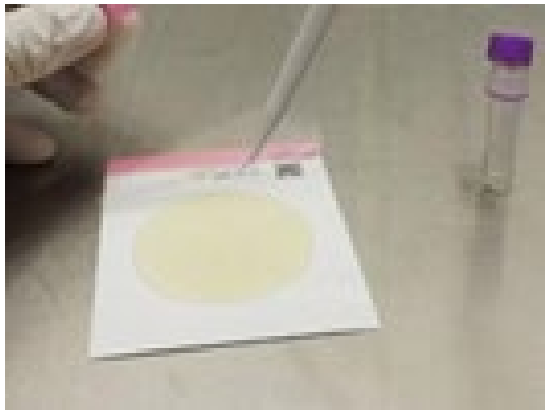


Membrane filter

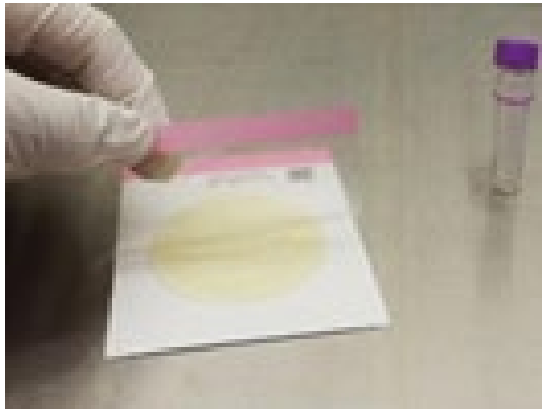
Vacuum pump

Membrane filtration assembly:
Funnel + Locking ring + Flask + etc.

2. Method – 1) Sample Suspension



① Open the cover film and drop 1 mL sterile water in the center of the culture area.



② Slowly close the cover-film.

③ Allow the plate to settle for 3 mins or more to solidification of the suspension.

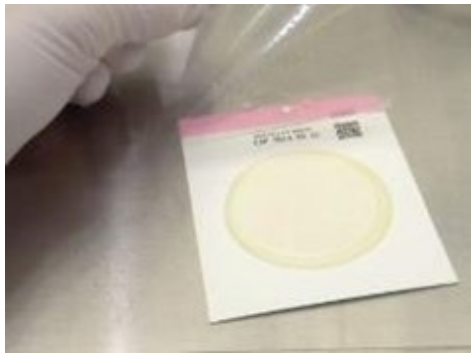
2. Method – 2) Insert Membrane Filter (MF)

④ Set the MF with sterile forceps and filter the liquid sample under suction.

⑤ Pick up the MF with forceps.

⑥ Open the cover-film of Easy Plate.

⑦ Place the MF in the center of the culture area.



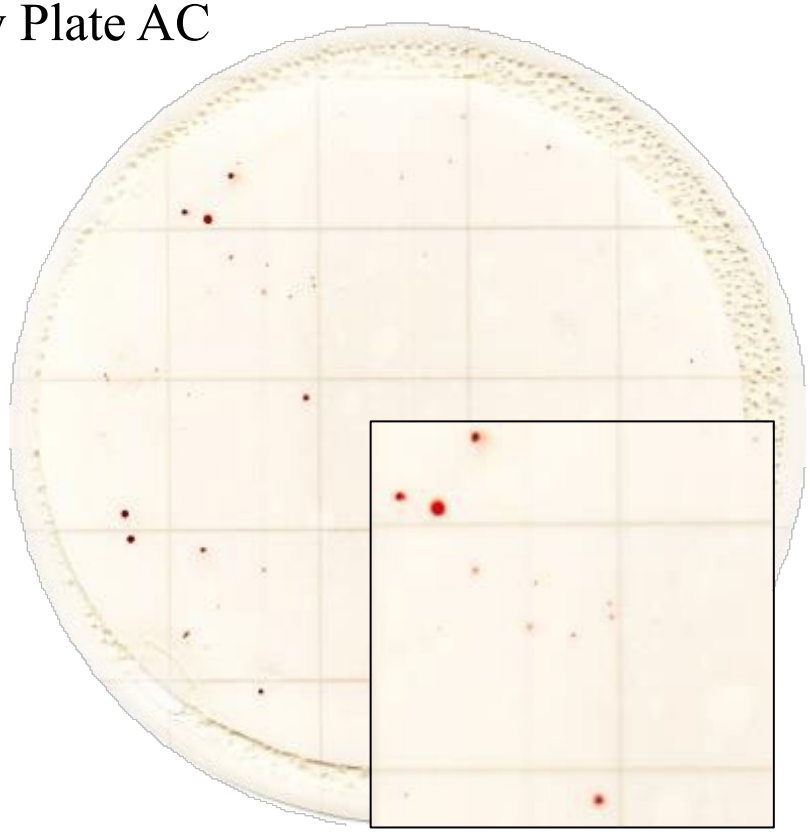
⑧ Close the cover film, taking care not to trap any air bubbles.

⑨ Incubate at 35 ± 1°C.

Incubation time:
AC 48 ± 2 hours
EC 24 ± 1 hour

3. Interpretation

Easy Plate AC



Agar Plate