

Crystal Violet Cell Colony Staining

Principle:

One simple method to detect maintained adherence of cells is the staining of attached cells with crystal violet dye, which binds to proteins and DNA.

Reagents:

1L Fixing/Staining solution *:
0.5 g Crystal Violet (0.05% w/v)
27 ml 37% Formaldehyde (1%)
100 mL 10X PBS (1X)
10 mL Methanol (1%)
863 dH2O to 1L
(Stored in chemical cupboard)

Procedures:

- 1) Remove media (do not wash cells).
- 2) Add staining solution to cover dish (~ 40% of medium level. For example, use 4 ml for a 10-cm dish).
- 3) Stain for 20 min at room temperature in fume-hood for chemicals.
- 4) Remove fix/stain solution and save in bottle for waste liquid.
- 5) Wash dishes one at a time by dipping into bucket of water in the sink with the water continuing to run.
- 6) Air dry dishes.
- 7) Count colonies with >50 cells by eye or with automated colony counter.

*The solution contains formaldehyde. 