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Protocol status: Working
We use this protocol and it's working

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Deepwell Reusual Protocol

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ABSTRACT

This is a protocol to reuse deepwells for sustainability practices

Growing cultures in a deep well

1 Cover a deep well with two layers of aluminium foil and tape the front and back to hold it securely. The tape also turns the aluminium foil into a lid for the deep well by temporarily peeling off the front tape.

2 Autoclave at 120C for 20min. After autoclaving, keep in a heated oven (> 50C) overnight for drying and desiccation.

3 Do not fill the deep wells more than 60% of their max volume if they are to be placed in a shaking incubator to avoid spillage.

Deep well Decontamination

4 Tape around the deep well over the aluminium foil to prevent spillage.

5 While carrying the deep well outside the lab space, enclose it in a waterproof autoclave bag. Keep sufficient absorbent paper on hand in case of accidental spillage.

6 In the autoclave facility, autoclave the deep wells at 120C for >30min to decontaminate.

7 Once autoclaved, the deep wells will be brought back to the lab

8 Carefully peel the aluminium foil and dispose the cultures and aluminium foil into a disposal bag containing paper roll to absorb the liquid.

9 Send decontaminated culture for incineration (yellow bin route).

10 Rinse the deep well plate with water and a brush to clean before future use.

11 Keep in a heated oven (> 50C) overnight for drying and desiccation

Major Risks

12 Using deep wells presents similar risk as using a microtiter plate and similar precautions need to be taken.

13 Spilling of culture during shaking - At speeds of 180rpm, the spillage is be negligible

14 Spillage while handling - If handled with reasonable care and awareness, the risk of spillage is negligible. Presence of the aluminium foil and tape reduces this risk. Even if inverted, outside spillage would be minimal, however care would have to be taken while removing the aluminium foil lid post autoclaving.