

VARIOUS PLATE AND PLATE SOLUTION RECIPES- per 1L

- Do not use the autoclave until you've received training.
- For all plates, cool while stirring until the flask can be touched comfortably to the inside of your arm. Do not over-cool as the melted agar will start to gel.
- Pour plates about 8mm thick (just below the scored line on the petri plate), 1 L should yield 22-25 plates; err on the thick side since thin plates can make strains sick.

Gadi's SM plates- for most of what we grow. SM broth is this without the agar

Glucose	10 g
Bactopectone	10 g
Yeast extract	1 g
MgSO ₄	1 g
KH ₂ PO ₄	1.9 g
K ₂ HPO ₄	0.6 g
Agar	20 g

SM/10 plates

Glucose	1 g
Bactopectone	1 g
Yeast extract	1 g
MgSO ₄ (7H ₂ O)	0.1 g
KH ₂ PO ₄	1.9 g
K ₂ HPO ₄	1 g
Agar	20 g

SM/20 plates

Glucose	0.5 g
Bactopectone	0.5 g
Yeast extract	0.5 g
MgSO ₄ (7H ₂ O)	0.05 g
KH ₂ PO ₄	1.9 g
K ₂ HPO ₄	1 g
Agar	20 g

Lactose plates- low nutrient plates for less robust strains

Lactose	1 g
Bactopectone	1 g
KH ₂ PO ₄	2.2 g
Na ₂ HPO ₄ -2H ₂ O	1.25 g
Agar	15 g

Adjust pH to 6.5 (usually fine)

Hay Infusion plates- low nutrient plate for plating wild strains or getting rid of contamination

Weigh 15 g of hay in a 4 L beaker and add 1.5 L H₂O

Leave 1 hour to overnight to infuse

Filter 1 L of the infused water through a funnel lined with cheese cloth

Pour into a 2 L flask with magnetic stirrer. Add while stirring:

KH ₂ PO ₄	1.5 g
Na ₂ HPO ₄	0.62
Agar	15 g

Starving plates

50x starving buffer	20 ml
Agar	20 g
H ₂ O	980 ml

50x Starving buffer

KH ₂ PO ₄ monobasic	9.9 g
Na ₂ HPO ₄ dibasic	1.78 g
H ₂ O	100 ml

KK2 buffer

KH ₂ PO ₄ anhydrous	2.25 g
K ₂ HPO ₄ anhydrous	0.67 g
H ₂ O	1 L