

Plant MEDIA Recipes

Enriched Liquid MS Media without Hormones (“MSO/2”)

in MilliQ water...

0.5x MS salts [Murashige-Skoog medium]

10g/L Sucrose

0.5x Vitamins-Glycine mix (see below)

pH to 5.8 with KOH

Dispense 50mL per 250mL flask or 200mL per 500mL flask

Autoclave

*100x Vitamins-Glycine mix (100mL)

10mg Nicotinic acid

100mg Thiamine-HCl

10mg Pyridoxine-HCl

40mg Glycine

Filter sterilize and store at -20°C.

T87 cell line media ("MS*8")

in MilliQ water...

Ingredient	Amount per 1L
MS salts	4.3g or 1 packet
Sucrose	20g
500x B1-inositol	2mL
0.5M MES/KOH pH 5.7	6mL
2mg/mL NAA stock	500uL
0.2mg/mL Kinetin stock	250uL

pH to 5.7 with KOH

For solid media, add Agar (8g/L) and autoclave.

Pour plates in sterile hood, 25mL per standard Petri dish.

Wrap plates with parafilm and store inside a plastic bag at 4°C

Liquid media may be filter sterilized and stored in the dark.

Dispense 50mL per disposable 250mL vent-cap flask for use.

500x B1-inositol (400mL)

80mg Thiamine-HCl

20g myo-inositol

400uL 0.5M EDTA pH 8

Adjust volume to 400mL with dH₂O

Filter sterilize and store working stock at 4°C

Store aliquots long-term at -20°C

0.5M MES/KOH pH 5.7 (50mL)

5.33g MES monohydrate (Sigma M-5287)

Adjust pH to 5.7 with KOH

Adjust volume to 50mL with dH₂O

Filter sterilize and store at 4°C

2mg/mL NAA (50mL)

100mg NAA

50mL 100% EtOH

Store at -20°C

0.2mg/mL Kinetin (50mL)

(2mg/mL)

20mg Kinetin

1mL 1N NaOH

9mL dH₂O

Dilute 1:10 with dH₂O to make 0.2mg/mL

Filter sterilize and store at -20°C

Root media, solid substrate

in MilliQ water...

Ingredient	Amount per 1L
MS salts	2.15g
1000x Gamborg's B5 Vitamins	0.5mL
0.5M MES/KOH pH 5.7	5mL

pH to 5.7 with KOH

Add Agar (10g/L) and autoclave.

Pour plates in sterile hood, 40mL per square 120mm dish.

Wrap plates with parafilm and store inside a plastic bag at 4°C

0.5M MES/KOH pH 5.7 (50mL)

5.33g MES monohydrate (Sigma M-5287)

Adjust pH to 5.7 with KOH

Adjust volume to 50mL with dH₂O

Filter sterilize and store at 4°C

1000x Gamborg's B5 Vitamins

This is a standard mixture available commercially

PhytoTech Labs (p/n G219- 100mL)

Always check for precipitation and warm if necessary before use.