

	OPERATING MODE	Réf :MO_ HOGL_CIV
	<u>IN VITRO PLANT CULTURE MEDIUM</u>	Version 1 date : 2010 page 1/2

1. Application field :

Plant culture medium for *in vitro* culture

2. Reference :

Hoagland modified medium

3. Referent person :

Philippe Nacry

4. Operating mode

Composition of culture medium

<i>Composition (mM)</i>	
	Normal
CaSO₄	0,5
KNO₃	(Variable)
MgCl₂	0,5
KH₂PO₄	1
NaFeEDTA	0,05
Micronutrients	+
MES	2,5

Quantity for 1l of solution

Stock solutions :

CaSO ₄ 0,5 H ₂ O (10 mM) :	1,72 g / l
KH ₂ PO ₄ (100 mM) :	13,61 g / l
KNO ₃ (200 mM) :	20,22 g / l
MgCl ₂ 6H ₂ O (50 mM) :	10,17 g / l
NaFeEDTA (50 mM):	18,36 g / l
MES (250 mM):	50 g / l

Oligo : x 1000

Quantity for 1l of solution

H ₃ Bo ₃ (50 mM) :	3,1 g / l
MnCl ₂ 4H ₂ O (12mM) :	2,38 g / l
CuCl ₂ 2H ₂ O (1mM) :	0,172 g / l
ZnCl ₂ (1mM) :	0,136 g / l
(NH ₄) ₆ Mo ₇ O ₂₄ 4H ₂ O (0,03mM) :	0,04 g / l

Molecular weight of chemical my vary according the their hydratation level ex : CaSO₄

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Nom :	P NACRY		C Tournaire

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Preparation of culture medium :

Composition in ml	1 L	1 L
Nitrate concentration	0 mM	2 mM
CaSO₄	50 ml	50 ml
KNO₃		10 ml
MgCl₂	10 ml	10 ml
KH₂PO₄	10 ml	10 ml
NaFeEDTA	1 ml	1 ml
Oligo	1 ml	1 ml
MES	10 ml	10 ml

Adjust pH at 5,7 (initial 4.3-4.7) with KOH 1M

Agar Type E (Sigma) : 8 or 9 g / litre

Once autoclaved, the medium can be stored for several weeks.

Pour the medium after sterilisation (once the T is around 65°C) or Melt it in micro wave oven (if solidified) , let it cooling down to around 60°C and pour 40 ml per Petri dish (12x12 cm)

Phytohormones, organic compounds (sterilised) can be added before pouring the medium.

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