

Making SOC Media for Bacterial Cell Growth

The components of the SOC medium are:

- 0.5% Yeast Extract
- 2% Tryptone
- 10 mM NaCl
- 2.5 mM KCl
- 10 mM MgCl₂
- 10 mM MgSO₄
- 20 mM Glucose*

*Note: add Glucose only after autoclaving the solution with the remaining ingredients and letting it cool down. Sterilize the glucose solution by passing it through a 0.2 µm filter.

SOC medium can be stored at room temperature in small aliquots and is stable for several years at -20°C.

Table shows the amount of each component required for 100 or 1000ml SOC-glucose.

Component	Amount for 100ml	Amount for 1L	Final Concentration
tryptone	2 g	20 g	2%
yeast extract	0.5 g	5 g	0.5%
NaCl	0.05 g (or 1ml of 1M)	0.5 g (or 10ml of 1M)	10mM
1M KCl	0.25 ml	2.5 ml	2.5mM
1M MgCl ₂	1 ml	10 ml	10 mM
1M MgSO ₄	1 ml	10 ml	10 mM
ddH ₂ O to	to 100	to 1000	

Make a 1M Stock of glucose (F.W. 180.2) and add 2ml to the 100ml SOC-glucose solution.

1M glucose: 18.02g of glucose made up to 100ml with ddH₂O.

After adding glucose aliquot into 15ml tubes (10ml sample each) and keep unused SOC at -20°C.