

Media Formulations and solutions for Human ES cells:

Thomson Lab, 2004

Serum Free Media for human ES cells on MEFs: Can last for 7-10 days

Final Concentration	Amount for 250ml Stock solution
80% DMEM-F12	200ml
20% KO Serum Replacer	50ml
1% Non-essential Amino Acids	2.5ml
1mM L-glutamine (see recipe)	2.5ml
0.1mM β -mercaptoethanol	part of L-glutamine
4ng/ml bFGF (see recipe)	0.5ml

L-glutamine stock solution: *Prepare on a per-use basis*

- 0.146g L-glutamine
- 10ml Ca/Mg free PBS
- 7 μ l β -mercaptoethanol

bFGF Stock: *Store aliquots at -20 or -70*

- 10ug vial of bFGF
- 5ml 0.1% Fraction V BSA
- Aliquot 0.5ml into sterile tubes

0.1% Fraction V BSA:

- 0.1g Fraction V BSA
- 100ml PBS with Ca and Mg
- Filter Sterilize

Collagenase IV Split Media: *This media lasts 2-3 weeks*

- Final concentration of 1mg/ml in DMEM-F12 media
ie. 0.05g collagenase IV in 50ml DMEM-F12

Cell Freezing Media:

Cryopreservative Medium:

Final Concentration	Amount for 10ml Stock Solution
60% DMEM-F12	6ml
20% defined FBS	2ml
20% DMSO (do not filter sterilize)	2ml

Resuspension Medium:

Final Concentration	Amount for 10ml Stock Solution
80% DMEM-F12	8ml
20% defined FBS	2ml