STOCK SOLUTIONS

For ease of use, prepare aliquots of all solutions and keep frozen. Aliquots may be placed in a Styrofoam rack and the rack labeled with stock number, solution name, aliquot volume, and date.

The choice of water for making stocks depends upon local availability of highly-purified water. We make up stock solutions using Tissue Culture Water purchased from Sigma. For all other media (OCM, saline, etc.), we use Millique water or distilled and deionized water.

For product catalog number and company information, click on the highlighted word.

Stock 1: Na lactate. Purchase as a 98% syrup. Follow manufacturer’s indications for expiration date. Store at 4°C.

Stock 2: Na pyruvate. Dissolve 0.220 g sodium pyruvate in 100 ml water. Sterile-filter and prepare 3 mL aliquots in 5 mL tubes and store indefinitely at -20°C.


Stock 4: BSS/Hep. Add 1000 USP units of sterile heparin (dissolved in 3-5 ml of water and sterilize through a syringe filter) into 500 ml BSS (Stock 3). Store in 10 ml aliquots in sterile 13 ml tubes indefinitely at -20°C.

Stock 5: Estradiol. Dissolve 1 to 3 mg estradiol in ethanol for a final concentration of 1 mg/ml. For example, if you weight out 2.3 mg, add it to 2.3 ml ethanol (it is easier to adjust volume than small masses.) Store in a glass container at -20°C for up to 2 months.

Stock 6: Folltropin. Reconstitute Folltropin-V as directed by manufacturer to prepare a 20 µg/µl solution. Place 150 µl aliquots into sterile 1.5 ml microcentrifuge tubes and store indefinitely at -20°C.

Stock 7: Heparin. Dissolve 20 mg in 10 ml water. Pipet 600 µl aliquots and store at -20°C in 1.5 ml microcentrifuge tubes indefinitely.

Stock 8: Gentamicin. Obtain gentamicin solution (10 mg/mL) from Life Technologies (15710-064) and store at 4°C until expiration date.

Stock 9: PHE Mix. Prepare as fresh solutions primary stocks of 1 mM hypotaurine (1.09 mg in 10 ml saline), 2 mM penicillamine (3 mg in 10 ml saline) and 250 µM epinephrine [dissolve 1.83 mg in 40 ml of a lactate-metabisulfite solution (stock 9a)]. Epinephrine is easily oxidized by direct light so take precautions to avoid this problem (wrap in aluminum foil or place in dark container). Combine 10 ml of 1 mM hypotaurine, 10 ml of 2 mM penicillamine, 4 ml of 250 µM epinephrine and 16 ml of saline and sterile filter. Aliquot 400 µl of PHE Mix into sterile 1.5 ml microcentrifuge tubes and store in a light resistant container at -20°C indefinitely. Upon retrieval of PHE mix for use, wrap tube in aluminum foil.

Stock 9a: Lactate-metabisulfite solution. Add 77 µl of a 98% Na lactate syrup (or the equivalent volume if a lower percent lactate syrup is used) and 50 mg Na metabisulfite to 50 ml water. Make fresh for each use.
Stock 10A: EFAF BSA for SOF-FERT. - dissolve essentially fatty acid free BSA (Sigma) in SOF base solution at a concentration of 60 mg/mL and sterile filter. Store in 10 mL aliquots in 13 mL tubes at -20 C indefinitely.

Stock 10B: EFAF BSA for SOF-BE1. - dissolve essentially fatty acid free BSA (Sigma) in SOF base solution at a concentration of 40 mg/mL and sterile filter. Store in 10 mL aliquots in 13 mL tubes at -20 C indefinitely.

Stock 10C: BSA Fraction V for H-SOF. Dissolve BSA fraction V (Sigma) in SOF base at a concentration of 60 mg/mL and sterile filter. Store in 25 mL aliquots in 50 mL tubes at -20 C indefinitely.

Stock 11: Glutamax Obtain 100X Glutamax from Life Technologies #35050-061 and store at 4°C until expiration date.

Stock 12: MgCl₂ for Percoll. Prepare 0.1 M stock by adding 0.203 g MgCl₂ to 10 ml water. Sterile filter and store at 4°C indefinitely.

Stock 13: CaCl₂ for Percoll. Prepare 1 M stock by adding 0.735 g CaCl₂+2H₂O to 5 ml water. Sterile filter and store at 4°C indefinitely.

Stock 14: Hyaluronidase. Prepare stock solution of type IV hyaluronidase at 10,000 units/ml in saline, sterilize through a 0.2 μm filter into a sterile tube, and prepare 100 μl aliquots in sterile microcentrifuge tubes and store at -20°C indefinitely.

Stock 15: 100X Myo-inositol. Dissolve 0.998 g of myo-inositol in 20 mL of sterile water. Sterile filter and aliquot 1 ml into 1.5 mL microcentrifuge tubes and store at -20°C indefinitely.

Stock 16: 100X Na citrate. Dissolve 0.2941g of sodium citrate in 20 mL of sterile water. Sterile filter and aliquot 1 mL into 1.5 mL microcentrifuge tubes and store at -20°C indefinitely.

Stock 17: 100X caffeine. Dissolve 0.3884 g caffeine in 20 mL water. Sterile filter and aliquot 1.2 ml into sterile 1.5 ml microcentrifuge tubes and store at -20°C indefinitely.

Stock 18: Pen/Strep. Take directly from commercial bottle of 100 X pen/strep.