Culture of MEL murine cell lines

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Obtaining cell lines:
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Mouse erythroleukemia (MEL), derived from a B-cell lymphoma, are rapidly dividing murine cell lines that are maintained in suspension cultures and grow as loose clumps. Cells should be maintained at 37ºC with 5% CO_2 at a density between $1x10^5$ and $1x10^6$ cells/mL. Cultures should be split 1:8-10 ~every two days to maintain this concentration.

MEL growth medium: 10% HI-FBS(heat-inactivated), 1% Pen-strep(Penicillin and Streptomycin), RPMI 1640 with L-Glutamine;
MEL freezing medium: 90% HI-FBS, 10% fresh DMSO, freeze at a concentration of $1X10^7$ cells/ml.

Starting cultures from frozen stocks:

1. Thaw cell vials at 37ºC.
2. Add to 15mL tube with 10 ml fresh growth medium, centrifuge 1500 rpm/ 3min., and discard supernatant.
3. Resuspend cells in 10ml fresh growth medium, add to small flask and incubate in 5% CO_2/37ºC.
4. Cells can normally be split ~1:8 after 2 days and maintained as described above.

DMSO-induction of MEL cells: To induce erythroid differentiation, MEL cells are treated with 2% DMSO. DMSO-induction of differentiation slows growth so that cells only need to be split 1:2 at day 2 or 3 after induction. Differentiating cells will become noticeably red when pelleted by 2-3 days after induction and color will increase in following days.