SOP: **Propagation of K562**
Date modified: **9/5/2008**
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Ordering Information

K562 may be ordered from ATCC as a frozen ampoule.

Name: K562-chronic myelogenous leukemia
ATCC #: **CCL-243**

Notes:
This cell line grows in suspension.

Materials List

1. RPMI 1640 with 2mM L-glutamine (cellgro Cat# 10-040-CM)
2. Fetal Bovine Serum (cellgro Cat# 35-016-CV)
3. Sodium Pyruvate (cellgro Cat# 25-000-CI)
4. T225 & T25 culture flasks
5. Graduated pipets (1, 5, 25mL)
6. Penicillin-Streptomycin Solution (100X) (Cellgro Cat# 30-002-CI)
7. Hemocytometer
8. Micropipet w/ P20 tips
9. Microscope

Growth Media for K562

RPMI 1640 with 2mM L-glutamine
Sodium Pyruvate 10mM
10% FBS
Pen-Strep (1x)

Procedure

A. Receipt of Frozen cells and starting cell cultures.

1) Immediately place frozen cells in liquid nitrogen storage incubator.
2) Quickly thaw ampoule in 37^{o}C water bath.
3) Transfer thawed cells to a T25 flask with 10ml of warm growth media.
4) Allow cells to recover over night in 37^{o}C, 5% CO_2 humidified incubator.
5) The take cell count and spin down cells, 500g for 5 minutes, then decant old media
6) Re-suspend cells in warm fresh media at a volume to yield a density of 2x10^5 cells/ml.

B. Sub-culture

1) Take cell counts every 48 to 72 hours.
2) Maintain cell density between 1x10^5 and 1x10^6 cells/ml.
3) Add fresh warm media when appropriate.
4) Record each subculture event as a passage.
5) Cells can be spun down, 500g for 5 minutes, rinsed with 1x PBS and re-suspend in a smaller volume of warm growth media when appropriate

C. Maintenance

1) Change media as cell density requires.

D. Harvest

1) Pass cells until desired cell number is achieved
2) Spin down cells and rinse with 1x PBS as described in `sub-culturing`