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# Pharmacological induction of apoptosis with Camptothecin

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## Pharmacological induction of apoptosis with Camptothecin

### Materials

- A cell line or primary cells susceptible to apoptosis induction.
- RPMI-1640 medium supplemented with 10% FCS
- 1 mM stock solution of Camptothecin prepared in DMSO
- Tissue culture flasks or tissue culture plates

### Experimental Procedure

1. Prepare cells in fresh RPMI-1640 medium with 10% FCS at a concentration of 0.5 x $10^6$ cells/mL in desired tissue culture flasks or tissue culture plates.

2. Add an appropriate amount of 1 mM Camptothecin to the cell suspension to achieve a final concentration of 4-6 µM. The negative control should consist of cells maintained in medium with an equivalent dilution of DMSO only.

3. Incubate cells for the amount of time optimal for your cell type in a humidified, 5% $CO_2$ incubator at 37°C. It is recommended that you first do a time course to get an idea of how sensitive you cells are to undergo apoptosis

4. Harvest cells by centrifugation and proceed with appropriate assay to evaluate the induction of apoptosis.

   *Note: Other pharmacological reagents that have been shown to induce apoptosis include: Actinomycin D, Aphidocolin, Cycloheximide, Dexamethasone, 5-Fluorouracil, Hydroxyurea, and Staurosporine.*

## References

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