

Assay Name: Label-free suspension cell proliferation by direct cell counting

Assay ID: Celigo_05_0002

Description: Monitor proliferation of suspension cells with direct cell counting measurements

Stains: Label-Free

Imaging channels: Bright Field

Image analysis algorithm: Celigo software Direct Cell Counting

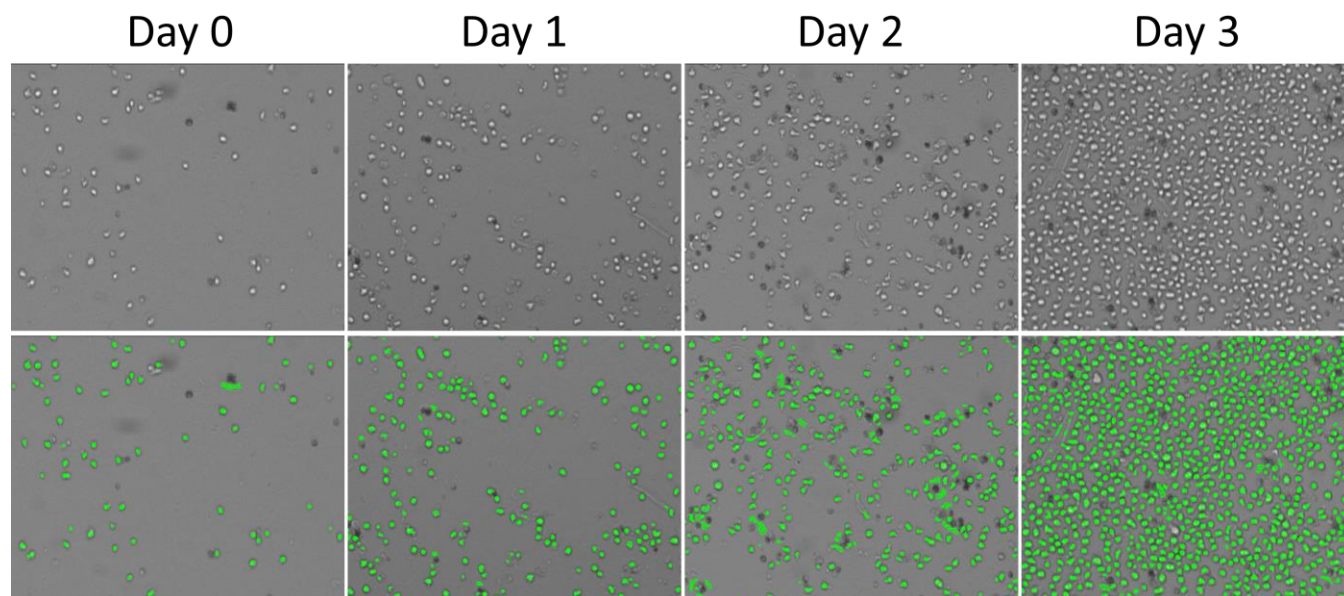
Methods:

1. Culture and collect suspension cells
2. Seed the suspension cells in a 96-well microplate at 4,000 cells/well and then add drug treatments
3. Centrifuge the microplate using a swing bucket rotor centrifuge for 5 min to settle down all the cells
4. Incubate the cells overnight
5. Use Celigo and capture images and analyze total number of suspension cells in the bright field images at multiple time points

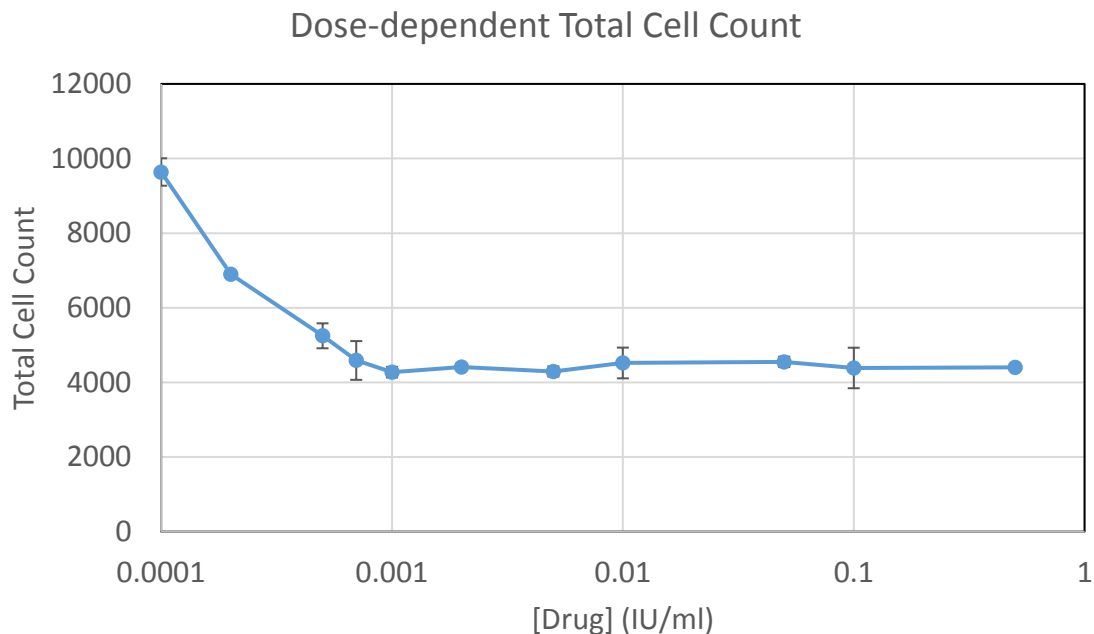
Results:

Counting suspension cells using Celigo image cytometer

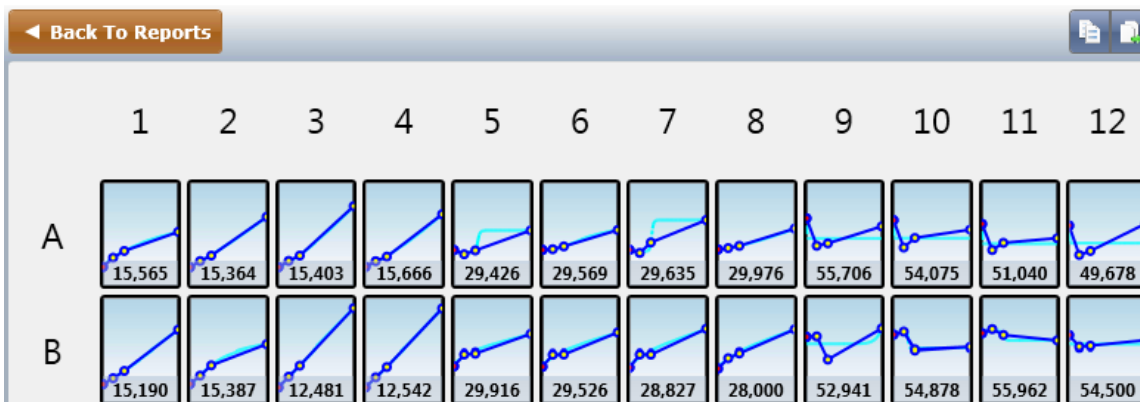
- Example of counted suspension cells at different time points
- The bright center on the suspension cells allows the Celigo software to accurately count all the cells



- By performing direct cell counting on cell samples in different well with drug treatments, a dose response graph can be plotted



- In addition, multiple time points can be captured by Celigo to create growth tracking of suspension cells over time



- The method allows high-throughput label-free counting of suspension cells
- The Celigo can rapidly and accurately count suspension cell number in standard multi-well microplates
- Both drug dose response curves and growth tracking curves can be generated from the measured data