

Assay Name: Cell cycle analysis using EdU and DAPI

Assay ID: Celigo_02_0004

Description: Measure cell cycle in drug treated and control samples by staining with EdU and DAPI

Stains: EdU (green, detects cells in the S-phase), DAPI (blue, detects cells in G₀/G₁ and G₂/M phases)

Imaging channels: Bright field, Green, Blue

Image analysis algorithm: Celigo software Target 1 + 2 + 3

Methods:

1. Seed A549 cells in a 96-well plate
2. Treat with selected drugs or vehicle control
3. Add media with EdU per well
4. Fix the cells in ice cold, 100% Methanol for 15 minutes
5. Stain with DAPI (Nexcelom, Cat# CS1-0127)
6. Image entire 96-well plate (whole well imaging) in ~15 minutes
7. Analyze cell cycle data using Celigo gating interface ~ 20 minutes

Results:

Cell cycle assay using A375 cells with Staurosporine-treated positive control

