

## Assay Name: Label free tumor spheroid growth inhibition

**Assay ID:** Celigo\_03\_0001

**Description:** Measure the size of tumor spheroids treated with drugs and grown under various conditions in a 96-well plate, label free

**Stains:** Label Free

**Imaging channels:** Bright field

**Image analysis algorithm:** Celigo software Tumorsphere 1

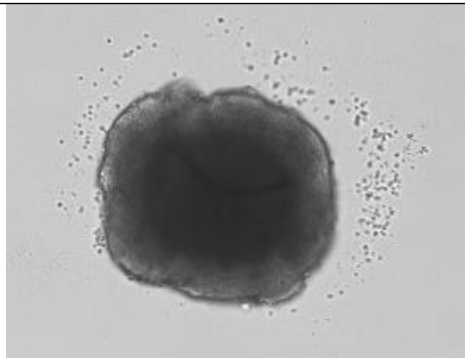
### Methods:

1. Seed 2,500 NCI-H460 cells/well in a ULA 96-well plates
2. On day 4, treat formed spheroids with drug X or vehicle control
3. Place one plate in hypoxic conditions and one plate at standard growth conditions
4. On day 4 post-treatment, image each entire 96-well plate in ~5 minutes

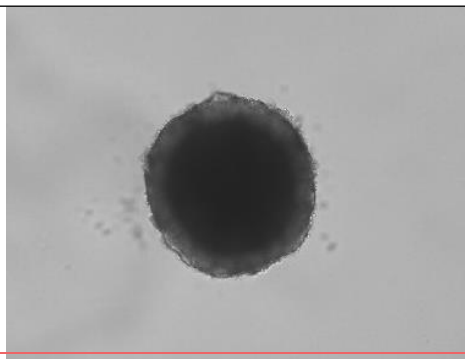
### Results:

Measuring tumor spheroid growth inhibition

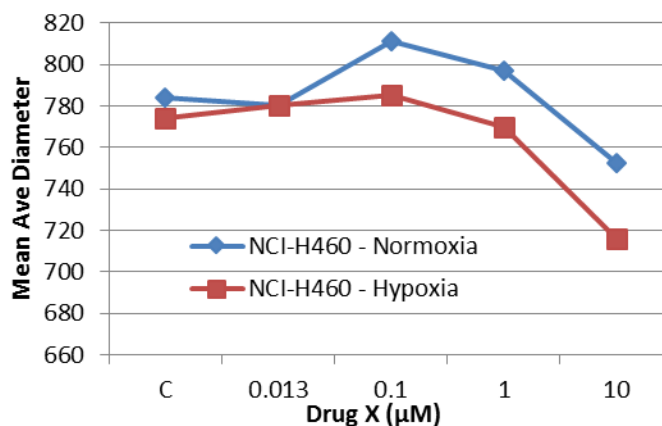
NCI-H460 Spheroid at Normoxia, treated with Drug X at 10  $\mu$ M



NCI-H460 Spheroid at Hypoxia, treated with Drug X at 10  $\mu$ M



NCI-H460 spheroids treated with Drug X and grown in Normoxia vs Hypoxia conditions



- The spheroids were imaged and analyzed using the Celigo image cytometer. The spheroid diameters are automatically reported for each spheroid.
- Drug-treated spheroids at hypoxic conditions had a smaller spheroid diameter compared to the spheroids grown at normal conditions.