

DIC Morphology Assay

This collection of ImageJ plugins measure cell size (area and perimeter) and cell shape (roundness, compactness, aspect ratio, circularity, fit ellipse) of DIC microscopy images through time. This assay was used to measure the change of cell shape from metaphase to interphase in mammalian tissue cultured cells.

Image requirements:

Images must be DIC images with one optical section and any number of time points.

Here is a short description of the provided plugins:

- 1) DIC_Morphology_Assay_.ijm
 - Runs on DIC, time-lapse images
 - Select region to be analyzed in each frame
 - Saves an image of the selected region as a TIFF
 - Saves an image of segmented object as a TIFF
 - Saves measurements as an .xls file

- 2) DIC_Morphology_Assay_TS_.ijm
 - Runs on an image saved from Condensation_Assay_.ijm
 - Returns segmentation image
 - Useful for quickly testing different segmentation parameters

REFERENCES:

If you use this plugin, please cite:

TBA

ImageJ macro installation:

<https://imagej.nih.gov/ij/docs/guide/146-31.html>