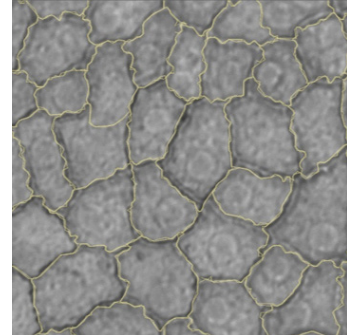


Cornea Cell Count

GENERAL PURPOSE

The *Cornea Cell Count* image analysis was developed to count individual cells in areas covered with cornea sections in the brightfield channel. It can be used as an endpoint determination or as a time charted growth monitoring. It is no staining required. The focus offset must be adjusted in a way that the objects have a lens effect, dark edge and bright interior. The essential results are the number of cells as well as their covering area in mm^2 .



RESULT TABLE

Cornea Cell Count	Number of detected cells per well
Valid Cornea Cell Area	Detected area covered with cells in mm^2 per well
Avg Cornea Cell Size	Average cell size per well in μm^2
Avg Intensity above Perimeter	Average difference in brightness between the cell and its dark edge
Cornea Cells per Valid Area	Number of detected cells in relation to their total area [$\#/\text{mm}^2$]

EXAMPLE

The image shows an example of corneal cells from hPSCs for the modeling of corneal disease. The cell detection is visible in yellow color.

