

Separation of cell aggregates (spheroids) of different dimensions

Overview

Studies on cell aggregation and its role in **drug resistance responses**, as well as the study on **spheroids** and their formation, are increasingly important. Even though in some cases the capability of cells to aggregate is an obstacle for analysis (e.g. Flow Cytometry technique), Celector® **separates single cells from aggregates**, and aggregates of different dimensions. Thanks to its feature of maintaining viable cells and being a gentle solution, single cells and aggregates maintain their form, and then are usable for further studies and applications.

Details

- High number of cells processed. 500.000 to 1 million cells processed at once. Possibility to perform multiple injections to accumulate cells for further experiments;
- Preservation of aggregates conformation;
- Viability and sterility maintained;
- Separated profile of single cells and cell aggregates starting from a mixed populations.

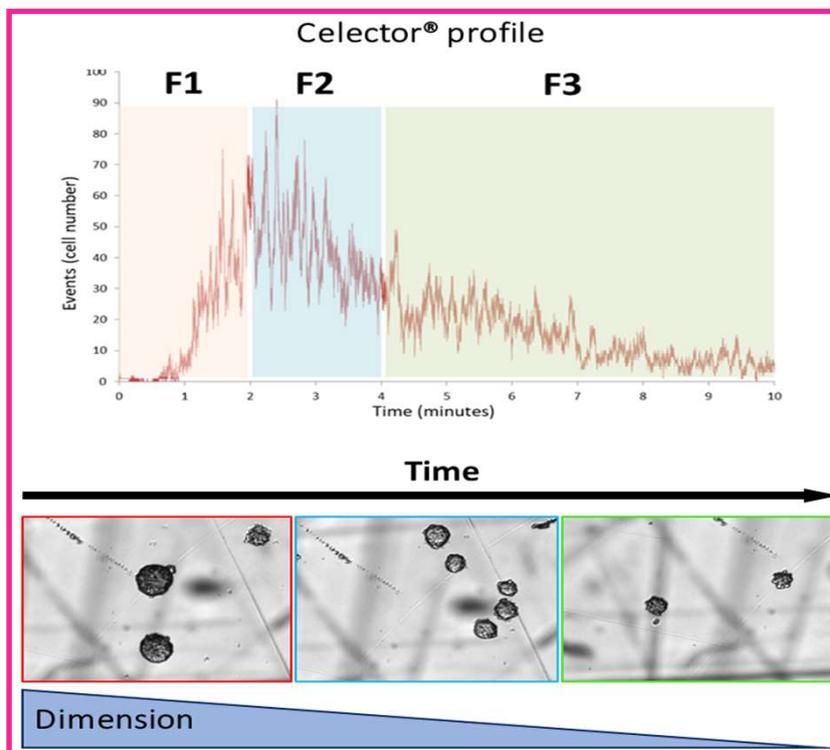


Figure 1. Aggregates (spheroids) separated using Celector® technology.

Images above show the representative screenshots of passing cells in the three different fractions (F1 ~ 1 minutes, F2 ~ 3 minutes and F3 ~ 6 minutes). Separation profile of the mixed population with bigger aggregates eluting first (F1, red), with a decrease in dimension during time (see F2 and F3).

Celector[®] isolation: spheroids in culture

Spheroids Size Quantification

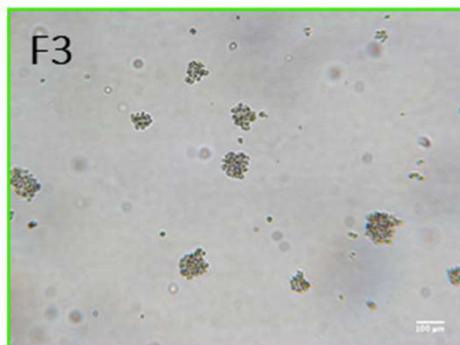
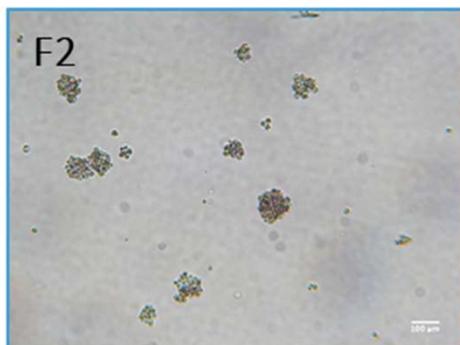
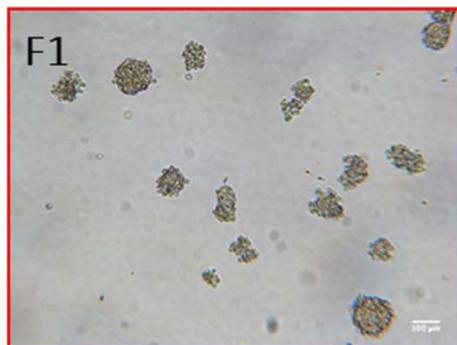
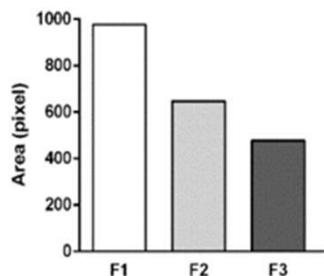


Figure 2. Plating of separated aggregates using Celector[®] technology.

Spheroids collected from F1, F2 and F3 after plating show the preservation of their natural form (up).

Applications

- Positive selection of single cells or cell aggregates from **mixed culture experiments**
- **Spheroids separation** according to their dimensions
- **Aggregates separation** for drug resistance studies in pharmacology



Stem Sel[®]

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