Imagine having an eye inside a living single cell and study whatever process is happening in that instant





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# **SPAchip® Lab-in-a-cell solution**

Based on functionalized silicon microchips with fluorescent probes to monitor intracellular physiological changes

# **Reagents:**

**CytoCHECK SPAchip®** 

**Detection Kits** 

SPAchip® works in living single cells and tracking them over long periods detecting several parameters simultaneously

## **CytoCHECK SPAchip®** pH detection kit

**CytoCHECK SPAchip®** Calcium detection kit

## **General living** single cell benefits

- Non-toxic for living single cells
- Intracellular monitoring over long time
- Reduce time during workflow
- Several parameters simultaneously
- Ready-to-use, robust workflow, including demonstrated
- Designed protocols for various cell types
- Easy-to-use in combination with image analyzers or flow cytometers
- Suitable for all culture plates and flasks
- Cell type flexibility, no lower limits
- Industry leading cell capture rates of up to 65%
- Low doublet rates of < 0.9% in 1,000 cells captured



### **Assay SPAchips**® preparation

1-Dissolve SPAchip solid film.

adding 1 mL of assay buffer to Assay SPAchips® tubes and mix until complete solubilization of the solid film (vortexing is desirable).

#### 2-Centrifugate the tubes.

Approx. 4300 xg (8000 r.p.m. in a 6-cm minispin rotor) for 10 minutes.

3-Aspire very gently and discard supernatant.

#### 4-Resuspend pellets

Within 1 mL of assay buffer.

5-Repeat steps 2 and 3.

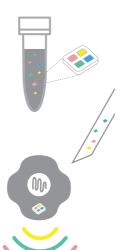
#### 6-Resuspend the pellet

In 100 µL of assay buffer. This should yield to approximately 2.5x106 SPAchips®/mL.

Once prepared, Assay SPAchips® can be stored at 2-6°C protected from light for up to three months.







# **Tailor R&D SPAchip**® services and assays

### **Main Applications:**

Oncology, Metabolism, iPS Cell, Neuroscience, Cardiovascular, Cell thera Our complete set of services include feasibility, assay development, optimization and screening

Your perfect CRO partner for drug discovery assays based on **SPAchip®** devices

### Offered services

- pH and Calcium monitoring
- In living single cells
- Cell proliferation
- Cell viability
- Cell death analysis

### **Laboratory infrastucture**

- Operetta Poenix
- Cell incubator
- Fluorescence microscopy
- Flow Cytometry
- Data treatment softwares

## **Tailor made** solutions

Assess dyes and reagents

Cell models and culture formats

Treatment paradigms

Reference and controls

Imaging strategy

# **Development**

Optimization of prototype assay

Min-screens to test scalability

Statistical robustness

Run to run and key reagent variatiion

## **Screening**

Monthly or quartely data reports

Feedback into parallel programs

Create your own cell-based assay with SPAchip® devices