



- ✓ Encapsulation of freshly isolated adipocytes
- ✓ Improvement of adipocytes survival up to 7 days
- ✓ Conservation of cell donor characteristics
- ✓ Adapted for multiparametric & high throughput screening
- ✓ Modulable gel composition to mimic microenvironment

A standardized process for a customized model

1. Select the donor characteristics



- Male/Female
- Age, BMI
- Healthy/Sick

2. Select the anatomical localization



- Subcutaneous
- Facial
- Visceral

3. Select the capsule composition or environment



- Inflamed
- Fibrotic
- Pollution

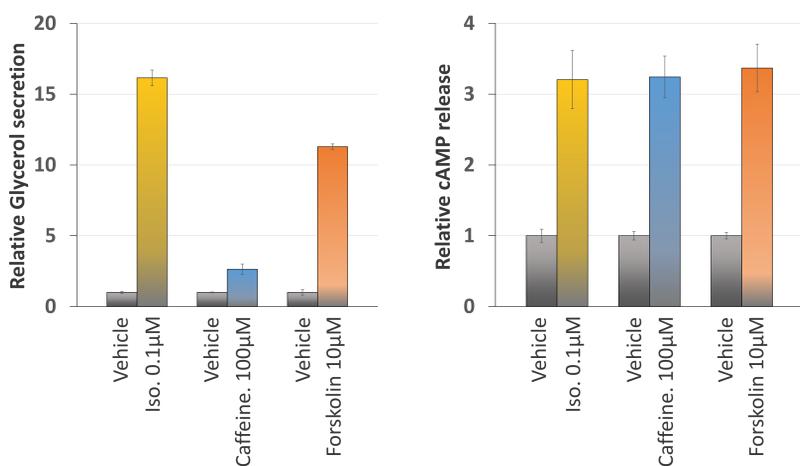
4. Select your tests among our validated assays



- Insulin sensitivity
- Fibrosis & Inflammation
- Metabolism

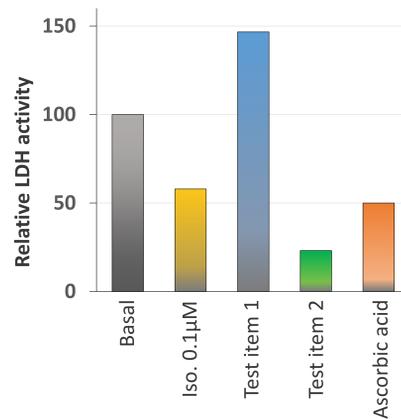
Application cases

Lipolysis and secretions



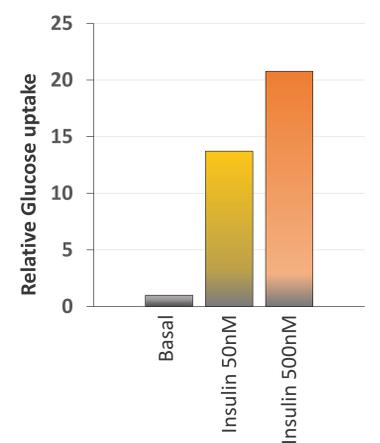
DIVA Caps were treated for 2h with the indicated items with the corresponding vehicle. Extracellular media were collected, and Glycerol or cAMP were quantified.

Cytotoxicity



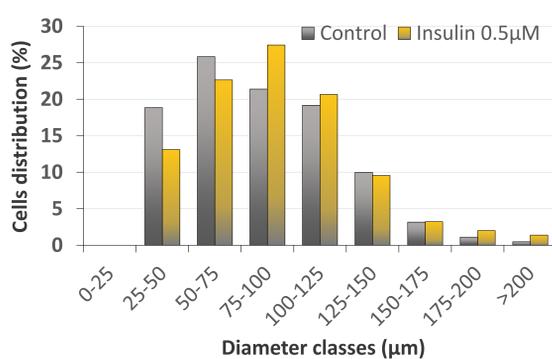
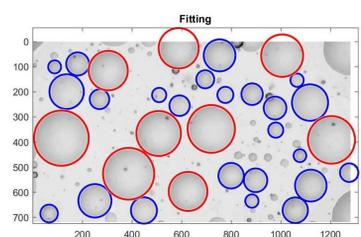
DIVA Caps were treated for 24h with the indicated items. Extracellular media were collected, and Lactate Dehydrogenase released by dead cells was quantified.

Glucose uptake



DIVA Caps were treated or not with insulin for 2h. Intracellular glucose up-taken by the cells was quantified by bioluminescent assay

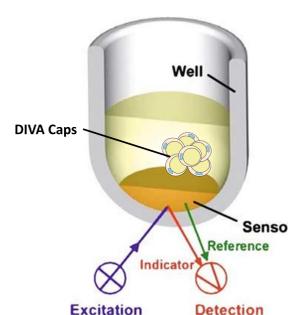
Cell size evolution



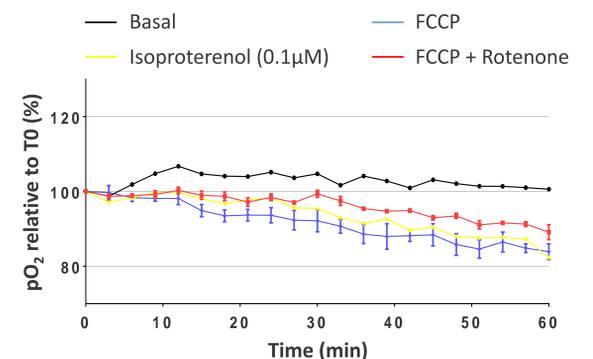
Our partner : **IMACTIV-3D**

DIVA Caps were treated or not with insulin for 72h. Capsules were then fixed and dissociated. Cell suspensions were imaged by optical microscopy and acquired images were analyzed via a specific software dedicated to adipocytes size analysis developed by IMACTIV 3D.

Cell respiration



Based on Schäferling M et al. 2008



DIVA Caps were cultivated in Oxoplate 96 wells. Before measurements, the capsules were treated with the indicated items. FCCP= uncoupler of mitochondrial oxidative phosphorylation, for evaluating the maxima O₂ consumption capacity. Rotenone= inhibitor of respiration chain. The presence of O₂ in the medium was evaluated by detection of emitted fluorescence