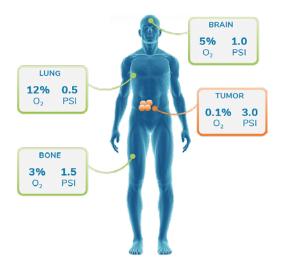


AVATAR cell control system



You control your cells. Not the way around.

The AVATAR cell control system lets you generate your cells of interest in a microenvironment customized just for them. Work with immune cells, tumor cells, stem cells, organoids and even rare, precious cells you have never been able to expand before.



The Avatar system can mimic the oxygen and pressure levels of human tissues



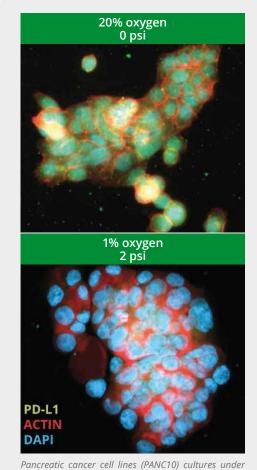
Unlike traditional incubators and hypoxia chambers, the Avatar system **controls both hypoxia and pressure**, while providing chemically-defined, xeno-free culture media to maintain a variety of **primary cell** types. Samples maintained under these customized conditions exhibit near-native morphology and gene expression profiles, making the results from cultured samples biologically meaningful.



Biologically relevant results

The human body is made up of diverse microenvironments that influence the behavior and molecular profiles of cells. The AVATAR cell control system, cultures cell samples in the most suitable environment specific to cell type by regulating **pressure**, O_2 , CO_2 , and temperature to recreate the native in vivo conditions in which the sample was derived. These revolutionary capabilities enable the culturing of difficult to grow patient samples, from primary cells, stem cells to tumor cells.

- Customize: Fine-tune key physiological conditions to tailor phenotype
- Replicates: Grow cells consistently every time, and get it done in a shorter window
- Accessible: Use your cells with our optimized protocols and xeno-free media for a ready to go solution
- Target: Validate specific gene, protein and metabolic profiles for more accurate assay development
- Nurture: Recover cell viability after thawing frozen samples and post-transfection with optimal culture conditions
- Scale Up: Stack and use multiple AVATARs at the same time for higher throughput



Pancreatic cancer cell lines (PANC10) cultures under conditions mimicking the metastatic niche (low oxygen and high pressure) decreases the expression of immunotherapeutic target PD-L1 (green, right image).

Avatar specifications

WEIGHT: 28,6 kg

SIZE (W x D x H): 34,3 x 33,3 x 30,5 cm

CHAMBER CAPACITY: 3,7 |

POWER: 100 - 240 V AC, 50/60 Hz, 2 Amps

GAS REQUIREMENTS: In-line 25 psi N₂, 25 psi CO₂



