# InSimili OxygenControl

## The first plates for Hypoxia-in-a-dish



Recreate physiological and pathological oxygen conditions directly inside standard cell culture plates. Thanks to the special coating applied at the bottom of the culturing dish, we regulate the oxygen concentration in the media. No incubators, hoods, or training is required. Select the configuration and start culturing cells.

#### Advantages

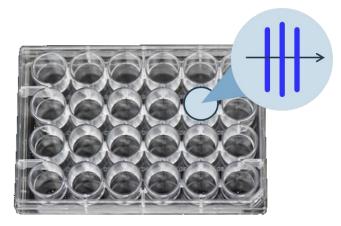
- Recreate the Oxygen concentration of tissues:

- Cartilage,
- Bone Marrow,
- Muscles, and more.
- Model Hypoxia and Reoxygenation in diseases:
  - Solid Tumors,
  - Parkinson's and Alzheimer's,
  - Heart Attack and Ischemia.

- Maintain stable Oxygen concentration outside of incubators and without the need for hypoxic hoods.

- Save time testing multiple oxygen levels at once.Introduce hypoxic models in high-throughput
- applications with minimal overhead.

- Reduce costs and simplify operations by replacing expensive and inaccurate hypoxic hoods.



**Figure 1**: Strips of coating inside the well of a 24-well plate. The Oxygen concentration in the medium is measured at the bottom of the well using an electrochemical method.



### OxygenControl

Available in different formats and common brands of labware:

- Multi-well plates: 6 96 wells
- Petri dishes: 3.5 20 cm
- Flasks: T-25, T-75

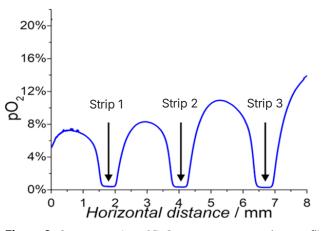
The product is for single use only. The quality of the product cannot be guaranteed after the exp. date. The product should be stored unopened under dry conditions at 4° C. RESEARCH USE ONLY. NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE.



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#### Features

- Configurable oxygen concentration in the wells:
  - Uniform levels,
  - Complex 3D oxygen profiles.
- Tested with 2D cell lines including:
  - immortalized cells,
  - primary cells,
  - stem cells,
  - iPSCs.
- Tested with common culture mediums:
  - DMEM,
  - RPMI,
  - F-12.
- Stable conditions up to 2 weeks.
- Compatible with hydrogels for 3D cell cultures.
- Validated for High-throughput screening processes.



**Figure 2**: Correspondent 2D Oxygen concentration profile. The coating sets a precise Oxygen concentration in 3 dimensions, recreating the true gradients found in tissues.