



HYPOXYLAB™

Bench-top physiological oxygen incubator and workstation

- Maintains physiological oxygen, CO₂, humidity, and temperature
- Regulated using oxygen partial pressure (pO₂) for true 'physoxia'
- Compact form-factor, industry-leading gas consumption performance
- Ergonomic design, simple to operate and maintain
- HEPA filtration built-in
- Intuitive touch-screen operation
- OxyLite™ ready
- 2-year warranty



Rationale

Standard incubators expose cells to oxygen that is between 2 and 40-fold above that encountered physiologically, with potentially unwanted metabolic side-effects. To reproduce the *in vivo* state, cells and tissues in culture must be maintained at below atmospheric oxygen, i.e. under controlled conditions of 'physoxia'.



True physiological oxygen

HypoxyLab regulates its oxygen environment using the partial pressure of oxygen, a scientifically rigorous approach which makes it insensitive to changing climatic conditions or the altitude of the laboratory. HypoxyLab thereby sets the benchmark as the only system that allows scientists to faithfully replicate physiological oxygen conditions anywhere in the world.

Dissolved oxygen directly from media or cultures

A dedicated through-gland in the chamber wall supports our gold standard OxyLite™ oxygen sensors for highly accurate oxygen measurements directly from cell cultures or culture media being maintained inside the HypoxyLab (OxyLite™ monitor required).



Proprietary gas control technology

HypoxyLab uses gas control hardware and an advanced gas control algorithm, both developed in-house, to create and maintain a fully humidified, highly stable oxygen-controlled environment for tissue culture. It responds rapidly to single or multiple setpoint changes, with minimal or zero overshoot characteristics, while demonstrating industry-leading gas consumption performance.

Contamination control

A built-in UV source within the water reservoir and a user-replaceable HEPA filter that continuously scrubs the chamber atmosphere ensure that cultures and media are protected from contamination.

Easy-entry system

A simple but smart letterbox hatch affords quick and easy transfer of cell plates, media, and accessories without the need for an air lock or isolation hatch. HypoxyLab detects operation of the hatch, responding instantly to maintain steady-state conditions.



Touchscreen control

Chamber oxygen, CO₂, humidity, and temperature are all set and controlled from the integrated touchscreen, which simultaneously displays the current real-time levels of these parameters in both digital and trace formats.



Other design features and benefits

- Access via a simple cuff and sleeve system
- Angled vision panel and adjustable LED illumination for excellent visibility
- Adjustable internal shelf units
- Removable, lightweight cover for pre-loading of large consumables and routine cleaning
- Logging of oxygen, CO₂, temperature, and humidity traces; exportable to USB
- Data or mains cable pass-thru for powered devices within HypoxyLab
- Vacuum waste port pass-thru
- Unlimited and personalized customer support