

Coy O2 Controlled InVitro Glove-Box - Hypoxia Chamber

Coy O2 Control Glove Boxes are equipped with a purge-only airlock, which is a transfer chamber that equilibrates O2 levels by purging excess O2 prior to opening the door into the actual glove box and placing items inside. Perform incubation, culture maintenance & analysis all in the same environment with Coy's O2 Control Glove Box for Tissue Culture.

Rating: Not Rated Yet

[Ask a question about this product](#)

Manufacturer [Coy](#)

Description

- [Description](#)
- [Details](#)
- [Specifications](#)

Description

Coy O₂ Control InVitro Glove Box - Hypoxia Chamber (Microaerophilic / Hypoxic)

For Animal Studies

Coy's O₂ Control Glove Box for Tissue Culture allows you to perform incubation, culture maintenance & analysis in the same environment. O₂ and CO₂ concentrations will need to be adjusted from their normal atmospheric air concentrations within the experimental chamber or the glove box. N₂ is used as a flush gas to displace the atmospheric gas mix to the experimental pre-sets. The controllers, combined with the sealed glove box and airlock, provide a more accurate and uninterrupted environment than an incubator or cabinet system by eliminating exposure to non-experimental conditions.

Coy O₂ Control Glove Boxes for Tissue Culture feature:

- **Atmosphere Filtration System (HEPA)** — Capsule system filters the box atmosphere and controls contamination through a standard HEPA filter.
- **UV Light** — A combination of fluorescent and 254-nanometer UV lights provides illumination and decontamination of the work area.
- **Anoxic Upgrade Kit** — A kit for upgrading O₂ Control Glove Boxes to enable the users to create an anoxic environment, using catalyst reacting with a non-flammable hydrogen gas mix.
- **High Accuracy Calibration Kit** — Enables calibration and mounting of the O₂ sensor, taking into account temperature, pressure and the dilution effects of humidity on O₂ in air when it is used as the reference calibration gas.
- **Vacuum Sleeve** — Further minimize the slight amount of O₂ transferred into the system when accessing the unit through the glove ports.

- **Feed-Thru Adaptor** — Electrical wiring, tubing or cords are input through factory-installed feed-thru adaptors sealed through the glove box wall.
- **Custom Sizing for Analytical Equipment** — Perform all analysis and manipulations in a controlled environment.
- **Microscope View Port** — Microscopes, valuable tools for intrabox work, are easier to use with this optically clear, flexible vinyl port.

How to Control for Heat and Humidity

The Coy O₂ Control Glove Box for Cell and Tissue Culture has temperature control up to forty degrees Celsius. For long-term incubation, users will want to maintain high humidity levels to prevent sample from drying out. Coy offers a small humidified incubation box that allows samples to be incubated at levels of moisture at or near saturation while minimizing the amount of moisture that escapes into the glove box. Coy provides two solutions for controlling and removing moisture from this hypoxic chamber – a desiccant-based system or an automatic dehumidifier, which is recommended.

Details

All O₂ Control Glove Boxes for Tissue Culture are supplied with the following:

- Control of O₂ and CO₂ in 0.1% increments
- Gloveless sleeves (operator's arms and hands may enter the box through the cuff-and-sleeve system without compromising the environment)
- Large side door for initial equipment installation
- Interior power supply
- Arm port plugs seal box when operator is not working in it
- Adjustable interior shelves
- Gloves may be attached to sleeves
- Patented diaphragm top to compensate for small volume changes (e.g. hands entering), increasing user ergonomic comfort

Construction

Coy O₂ Control Glove Boxes are equipped with a purge-only airlock, which is a transfer chamber that equilibrates O₂ levels by purging excess O₂ prior to opening the door into the actual glove box and placing items inside. Automatic units use a specific preset time for purges based on protocol and desired glove box O₂ levels. Once preset, the airlock is operated with the touch of a button by lab personnel. With manual units, the user operates a valve and times the purge.

The Coy Humidified Incubation Box for Cell and Tissue Culture is a separate unit that sits inside the glove box. It allows cultures to be humidified with the same atmosphere content (gas and temperature) without immediately increasing the humidity of the rest of the box.

Materials

Coy O₂ Control Glove Boxes for InVitro Studies are available in polycarbonate (three standard sizes) and aluminum (two standard sizes). The choice of material depends on your research needs and budget. Aluminum is generally more robust and, therefore, has more service years than polycarbonate. Polycarbonate is a less expensive option and is easily customizable.

Specifications

Glove Box Specifications	Coy 1 Person O ₂ Control Glove Box	Coy 2 Person O ₂ Control Glove Box
Construction Material	Polycarbonate Plastic and Aluminum	
Total Glove Box Footprint	137 L x 61 D (H= 72) cm	152 L x 61 D (H= 72) cm
Interior Work Area	104 L x 59 D cm	188 L x 59 D cm
# of Glove Ports	2	4
Glove Port Style	Gloveless Sleeve Standard <i>Vacuum/Purge Sleeves or Gloved options available</i>	
Pressure Regulation	Automatic Pressure Relief Valve and Patented Diaphragm Top to compensate for hands entering through the gloves.	
Moisture Control	Glove Box Dehumidifier to maintain non-condensing moisture levels.	
Glove Box Temperature Control, and Range	+3 ambient to 45° C <i>Note: Not used if using internal incubator (s)</i>	
Glove Box working Incubation Capacity (# of 100mm Petri Dishes).	Up to 450 x90mm Petri Dishes	Up to 600 x90mm Petri Dishes
Airlock Capacity	30 x 100mm plates	
Airlock Operation	Automatic timer	
Airlock Transfer Time	10-190 seconds user adjustable	

Glove Box Specifications	Coy 1 Person O ₂ Control Glove Box	Coy 2 Person O ₂ Control Glove Box
Interior Power Supply	5 outlet 110/220v	
Power Outlets Needed	4 for standard operation <i>Note certain options will require additional outlets</i>	
Glove Material	Neoprene Sleeve with Latex Cuff	
Large Side Door	Standard <i>Options for removable Front Panel</i>	
Gas Requirements	N ₂ , CO ₂ and Oxygen gas sources	
Oxygen Control	0-100% +/- 0.1% resolution	
CO ₂ Control	0-20% +/- 0.1% resolution	
Humidified Incubation Box	Separate internal incubator designed to minimize media loss	

Reviews

There are yet no reviews for this product.