

BIOCAP

PCR Handlings with a high level of protection

Save your time while
saving your samples



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BIOCAP

PCR Handlings with a high

Benefits of BIOCAP prep stations

Decontamination by U.V. radiation with no risk for the operator

Exposure to powerful U.V. rays (C.U.V. rays in this case) leads to cross-linking of double-stranded DNA by introducing pyrimidine dimers, inhibiting enzymatic recognition and making them non-amplifiable. U.V. radiation clearly appears as a powerful decontamination method.

It is also important to make sure that the operator and other personnel are protected from radiation. This is why BIOCAP^{DNA} and BIOCAP^{RNA/DNA} enclosures are made of 10mm thick acrylic front and side panels designed to stop any possible U.V. leakage.

Acrylic thickness also offers excellent protection against β radiation emitted from ³²P. The chosen U.V. lamp location offers an excellent radiation coverage of the entire work surface and enclosure walls, while offering maximum protection to the operator. An optional mobile shelf placed within close proximity of the U.V. source allows for a faster decontamination process of pipettes and tubes.

An ergonomomy of quality

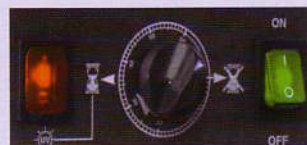
The front panel is slanted to allow the operator a good vision of the handling being performed. The work surface also features a front rounded edge allowing forearms to rest comfortably during manipulations.

Enclosures large enough to receive all PCR* equipment

The size of both BIOCAP enclosures has been especially chosen to receive new generation large size apparatuses commonly used during PCR handlings (minicentrifuges, tube racks, automatic pipettes, thermocyclers...) Access to the entire volume of the enclosure is possible while offering a front protective shield.



Operator and handling safety



A built-in timer allows for a precise control of the desired UV exposure time. Only a 5 to 30 minute UV exposure is necessary to guarantee a complete protection from cross contamination risks.

Automatic shutt-off of the UV lamp

For safety purposes, the UV lamp switches itself off automatically if the operator opens the lower door by accident while the lamp is still active ; the UV lamp cannot be turned on if the front door is open. Furthermore, while the UV lamp is active the laminar flow and external lighting are automatically turned off.



Rapidly accessible, the UV lamp can be easily cleaned or replaced.



Openings for cables.

* Polymerase Chain Reaction : PCR is a patented process owned by Hoffman-LaRoche, AG

level of protection



Without efficient contamination protection from a previous PCR handling and/or operator, you face the risk of restarting your entire PCR* experiment, thus wasting valuable time and samples. BIOCAP enclosures have been especially engineered to efficiently protect all PCR* handlings and help you save precious time. Offered at a competitive price, they are rapidly amortized.*

Invented in the mid-80's, the PCR* concept has seen its application field increase tremendously.

At the beginning, contamination from DNA fragments coming from an earlier manipulation was the only problem that had to be taken into account by a specialized enclosure equipped with a UV lamp for decontamination.

Since then, the limits of this first generation of enclosures have been attained. The multiplication of PCR* applications, now practiced by an even greater amount of biology specialists, are becoming more demanding and imply that a greater level of protection and a new generation of PCR* enclosures be developed.

The power of the method which implies a nucleic acid fragment multiplication by a factor 2 geometric progression in a very short time frame, demands that a maximum amount of precautions be taken against contamination risks. These come especially from previous handlings but also from the operator's hands, instruments and pipettes.

In the case where RNA fragments are manipulated by reverse transcription, (RT)-PCR*, so as to obtain cDNA, or in advanced studies concerning transcriptomics, external contamination becomes a central issue since any RNase introduction is to be ruled out.

BIOCAP enclosures are large enough to contain all the necessary equipment for today's PCR* work involving : thermocyclers, minicentrifuges, tube racks and automatic pipettes. They are also small enough to make them very appropriate for all specific uses. Decontamination by UV lamp is easy and automatic. The front of the enclosure has been especially designed to offer a protective barrier against contamination while offering great comfort and ease during handlings.



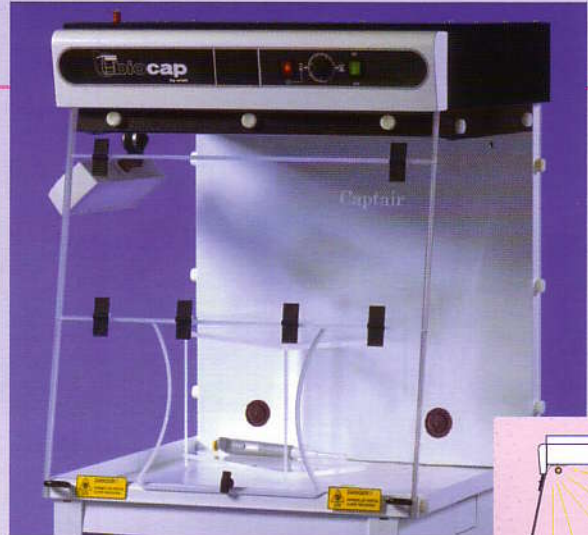
Headquarters and factory 80.700 sq. ft./ 7.500m²

level of protection

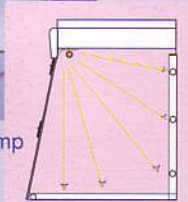
BIOCAP^{DNA}

Enclosure offering protection by containment for handlings involving an average sample contamination risk.

More ergonomic than the previous generation enclosures, BIOCAP^{DNA} insures a greater level of protection during handlings. BIOCAP^{DNA} can also offer a global solution for pre and post-PCR* work when two specific enclosures are not available. However, if space is available, a BIOCAP^{DNA} can be used exclusively for post-PCR* while another BIOCAP^{RNA/DNA} unit can be used for all pre-PCR* handlings.



UV Lamp



Dimensions (mm-in)	Width	Depth	Height
Internal	601	565	600
	23 4/6"	22 1/5"	23 3/5"
External	653	610	730
	25 6/8"	24"	28 3/4"

Specifications	BIOCAP^{DNA}
Internal volume of the enclosure	0.2 m ³ - 0.117 cfm
Total power consumption	26 Watts - 28 Watts
Maximum Amperage absorbed	0.11 A - 0.28 A
Voltage / Frequency	230/50 V/Hz - 115 V / 60 Hz

BIOCAP options

Acrylic shelf (Option 99)



Mobile and collapsible shelf for the fast decontamination of small equipment and samples.

Dimensions	Width	Depth	Height
(mm-in)	320 - 12 3/5"	200 - 7 7/8"	450 - 17 7/9"

Rolling cart (option Mobicap)



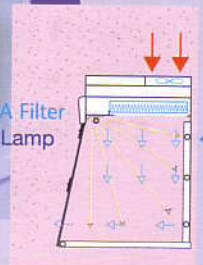
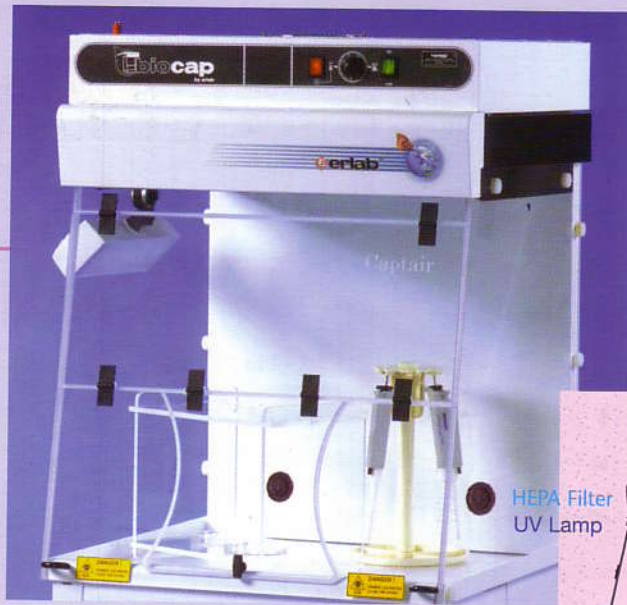
Very ergonomic, the Mobicap rolling cart is equipped with a retractable internal shelf which can be placed vertically at the rear of the Mobicap to free up knee space inside when using the rolling cart in the sitting position. The Mobicap rolling cart is equipped with 4 wheels, 2 are lockable.

Dimensions	Width	Depth	Height
(mm-in)	624 - 24 1/2"	600 - 23 5/8"	881 - 34 2/3"

Full product protection better than Class 100

BIOCAP^{RNA/DNA}

Enclosure offering protection by laminar flow for handlings involving a high sample contamination risk.



With a built-in vertical laminar flow, protection of the handling is greatly improved, particularly in relationship with human contaminants such as RNases. Reverse transcription linked to transcriptomic experiments are possible and without risk.

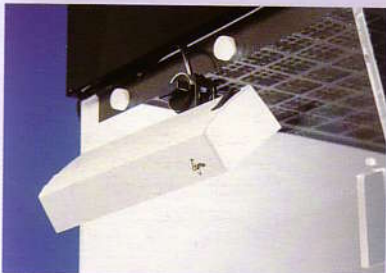
This is the enclosure of choice when preparing cDNA or performing a PCR* handling while working on RNA. Because of its extreme efficiency it is ideal for prePCR work.

Dimensions (mm-in)	Width	Depth	Height
Internal	601 23 4/6"	565 22 1/5"	600 23 3/5"
External	653 25 6/8"	610 24"	785 30 7/8"

Specifications	BIOCAP^{RNA/DNA}
Filter type	H14 HEPA Filter (99.999% for 0,3µm)
Volume of air treated	175 m ³ /h - 103 cfm
Average face velocity	0.53 m/s - 104.3 fpm
Internal volume of the enclosure	0.2 m ³ - 7 ft ³
Total power consumption	73 Watts - 78 Watts
Maximum Amperage absorbed	0.32 A - 0.68 A
Voltage / Frequency	230/50 V/Hz - 115/60 V/Hz
Blower	1 turbine type
Sound level	55 dB(A)

BIOCAP options

External lighting (Option 58)



With a power of 500 Lux it is adjustable in all directions which allows the operator to light up a specific area of the work surface. The lighting also switches itself off automatically when the UV lamp is turned on.

A vertical laminar flow increases protection particularly during transcriptomic handlings.

BIOCAP^{RNA/DNA}

An H14 HEPA filter (very high filtration efficiency) insures a 99.999% product protection against any contaminated airborne particle superior to 0.3µm in size (clean air better than Class 100).

The positive airflow applied inside the enclosure prevents the intrusion of any contaminants even when introducing the arms within the working area.



Headquarters and factory 80.700 sq. ft./ 7.500m²

Specifications subject to change without notice.



Headquarters and factory 80.700 sq. ft./ 7.500m²



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