

Equipment:

Autoclave:



-Electric plate with a pressure pot

-Used for sterilization

Microwave oven: Orion Microwave Oven OM 023D



-Specifications:

- Microwave & grill
- Digital
- 23 Liters
- Power output: 800-1100W
- Used for agarose-medium heating

Waterbath: Memmert Waterbath WNB 10



-Specifications:

- Temperature range in °C: min. 5°C above ambient up to +95°C with additional boiling mode (+100°C)
 - Electrical data: Voltage 230 V, 50/60 Hz
 - Heating Baths: corrosion-proof large-area heating on three sides
 - Electrical load: approx. 1200 W (during heating)
 - Installation: The vent openings in the left and back side must remain unobstructed. Minimum wall spacing on all sides is 80 mm. The minimum spacing from the top of the bath to the next ceiling is 750 mm.
 - Ambient temperature: +5 °C to +40 °C
 - Humidity rh max. 80 %, non-condensing
 - Overvoltage category: II
 - Pollution degree: 2
- Used for incubation of Eppendorf tubes

Thermostat: Memmert Climate Chamber ICH110C



-Specifications:

- Voltage: 230 V, 50/60 Hz
- Electrical load: approx. 1350 W
- Volume 108 l
- Working temperature range: from +10°C up to +50°C
- Setting accuracy 0.1°C temperature
- Temperature: 2 Pt100 sensors Class A in 4-wire-circuit, mutually monitoring and taking over the performance at the same temperature value
- Humidity: active humidifying and de-humidifying adjustable from 10-80 % rh with digital display of relative humidity - resolution of display 0.1 %, setting accuracy 0.5 %
- Air jacket: air jacket heating system for gentle all-around heating
- Cooling: energy-saving use of CFC-free cooling/heating system (refrigerant R134a)
- Defrosting: highly efficient automatic defrosting system
- Used for thermostatic incubation of Eppendorf tubes

Thermostat Cabinet: Memmert Incubator IN30



-Specifications:

- Voltage: 230 V, 50/60 Hz
 - Electrical load: approx. 1600 W
 - Ventilation convection: natural convection
 - Fresh air admixture: adjustment of pre-heated fresh air admixture by air flap control in 10 % steps
 - Set temperature range in °C: min. 5°C above ambient up to +80°C
 - Setting accuracy temperature: 0.1°C
 - Temperature: 1 Pt100 sensor DIN class A in 4-wire-circuit
 - Volume 32 l
- Used for bacterial medium and plate cultivation

Refrigerator: Electrolux Refrigerator



-Specifications:

- Product Type: 2 door
- Net Weight (kg): 59
- Gross Capacity (Liters): 350
- Gross Freezing Capacity (L): 91
- Freezer Net capacity (L): 74
- Voltage (V): 220 - 240
- Frequency (Hz): 50/60
- Noise: .42dB

-Used for storing bacteria

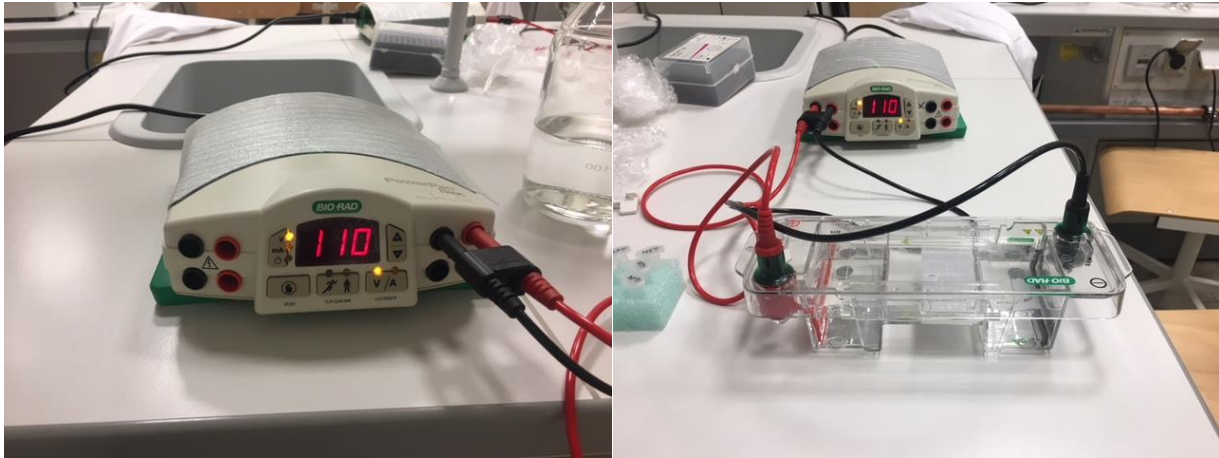
Ultra-low freezer: New Brunswick Scientific Premium U410



-Specifications:

- Max. Power Draw: 13.000kW
 - Ecological Features: Best energy performance when set against equivalent product
 - Type: Upright
 - Capacity: 410L
 - Insulation type: Standard
 - Cooling system: Cascade
 - Storage type: Long term
- Used for saving containers of bacteria

Gel electrophoresis: Bio-Rad PowerPac Basic Power Supply and Mini-Sub GT Cell



-Specifications: (power supply and chamber)

-Output range (programmable): 10-300 V, fully adjustable in 1 V steps 4-400 mA, fully adjustable in 1 mA steps 75 W (maximum)

-Timer: 1 min-99 hr 59 min, fully adjustable

-Regulatory: EN-61010, CE

-ReadyAgarose gels accommodated: Yes, 8-, 12-, 2 x 8-well

-Sample throughput: 8-30

-Base buffer volume: around 270 ml

-Buffer recirculation: No

-Bromophenol blue migration: around 43 cm/hr (at 75 V)

-Used for Gel electrophoresis

Micropipettes and tips: Bio-Rad Classroom Digital Micropipettes and Topline Tips



-Specification:

- Bio-Rad's classroom digital micropipets are designed for accurate measurement and transfer of solution volumes in microliter (p1) ranges. These adjustable pipets deliver exceptional comfort, durability, and performance. Four adjustable classroom pipet models are available to cover various volume ranges: 0.5-10 pl, 2-20 pl, 20-200 pl, and 100-1.000 pl.

- Adjustable digital dial

- Convenient tip ejector

- Accommodation of standard pipet tips

- Used for measurements

UV illuminator: Ultra-Violet Products Inc. Benchtop UV
Transilluminator



-Specifications:

-302nm UV illumination

-Dimensions: 11D x14W x4.8H in.(279x356x122mm)

-Used for gel cutting

Spectrophotometer: Biochrom WPA Biowave DNA Life Science
Spectrophotometer



-Specifications:

-Type: UV/Vis

-Wavelength Range: 90 - 900nm

-Wavelength Accuracy (+/-) 2nm

-Wavelength Reproducibility (+/-) 1nm

- Measurement Type Fixed wavelength (Abs/%T), Abs ratio and Abs difference in nucleic acid mode only, concentration (factor), Life Science Methods, cell density

-Used for spectrophotometrial measurements

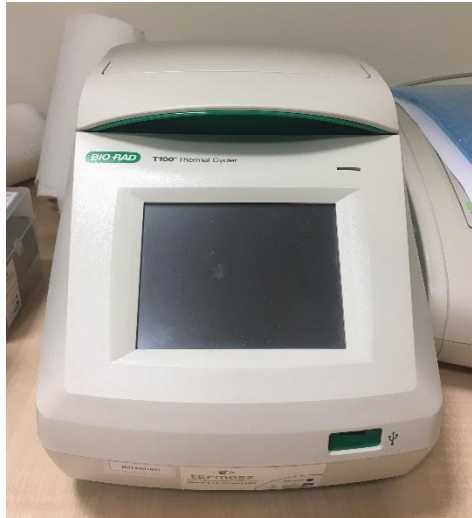
Spectrophotometer: Thermo Fisher Scientific NanoDro 1000
Spectrophotometer



-Specifications:

- Small Samples - Designed for 1 ul samples
 - Large dynamic range - Measures 2-3700 ng/ul (dsDNA) on a single sample. No need to change out cuvettes or caps.
 - High absorbance capability - 50 times that of traditional spectrophotometers
 - No Dilutions for most samples
 - Full Spectrum (220-750nm)
 - 10 second measurement time
- Used for full-spectrum microvolume fluorescence measurements

PCR: Bio-Rad T100 Thermal Cycler



-Specifications:

- Sample capacity: 96 x 0.2 ml tubes, 0.2 ml tube strips, or 1 x 96-well plate
 - Maximum ramp rate, °C/sec: 4
 - Average ramp rate, °C/sec: 2.5
 - Temperature range: 4–100°C
 - Temperature accuracy: $\pm 0.5^{\circ}\text{C}$ of programmed target
 - Temperature uniformity: $\pm 0.5^{\circ}\text{C}$ well-to-well within 30 sec of arrival at target temperature
 - Gradient range: 30–100°C
 - Temperature differential range: 1–25°C
- Used for replicating segments of DNA

Documentation system: Bio-Rad Gel Doc EZ Gel Documentation System



-Specifications:

- Fluorescence: Yes (stain-free imaging* and LW-excitable dyes) 'requires Bio-Rad stain-free gels
 - Gel documentation: Yes (Flamingo T's, Oriole™, SYPRO Ruby, Coomassie, Fluorescent Orange, or Krypton Stains; ethidium bromide, GelGreen, Gel Red, SYBRe Safe, SYBRe green, or SYBRe Gold dyes; Bio-Rad stain-free gels)
 - Detector: CCD
 - Emission filters: tray-based
 - Operating voltage: 110/115/230/240 VAC nominal
 - Workflow automated selection: Application-driven; user-selected or recalled by a protocol
 - Workflow automated execution: Controlled by a protocol via application-specific setup for image area, illumination source, filter, analysis, and reporting
 - Used software: Imagemag 5.1
- Used for documenting gel electrophoresis results

Shaker: BOECO Mini-Rocker Shaker MR-1



-Specifications:

-Kind of motion: rocking with fixed 7° angle

-Speed range: 7,5-30 rpm

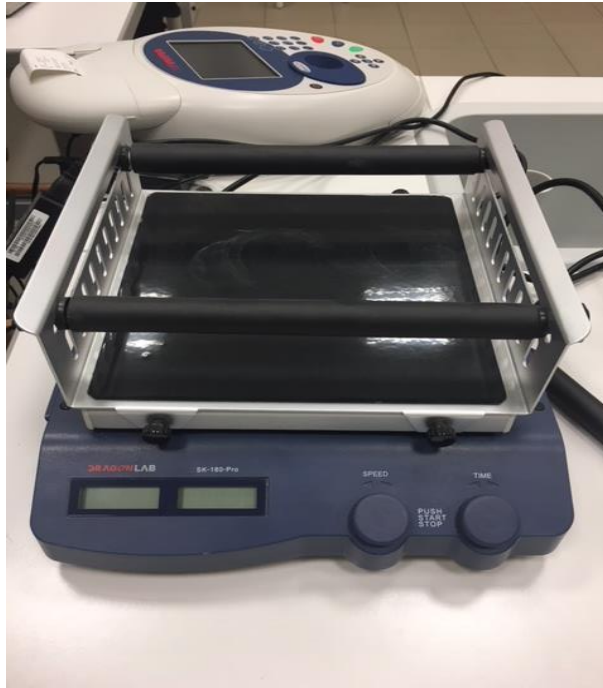
-Timer: digital, 1 min - 23h. 59 min.

-Platform size: 200 x 200 mm

-Max Loading: 500 g

-Used for bacterial medium cultivation

Shaker: Dragon Lab SK-L180-Pro



-Specifications:

- Compact, orbital and linear shakers with ideal shaking motion, for a maximum shaking weight of 7.5kg and 2.5kg -
 - LCD displays speed and timer. Speed, timer and operating mode can be viewed simultaneously
 - Wide range of platforms for use with a variety of vessels
 - Electronic time switching clock controls time or continuous operation mode
 - DC brushless motor, long service life and maintenance free
 - Over speed detection and protection
 - Free software ShakerPC, computer can control and document all operation values via RS232 interface
- Used for bacterial medium cultivation

Vortexer: Bio-Rad BR-2000 Vortexer 120V



-Specifications:

-120V

-vortex mixer -0-3000 rpm

-continuous or touch activation

-includes general purpose cup attachment

-CE approved: education use only

-Used for mixing small vials of liquid

Centrifuge: Bio-Rad Model 16K Microcentrifuge



-Specifications:

-120V

-18-tube benchtop centrifuge

-14000 rpm (16000 x g)

-includes rotor for either 1.5 or 2.0 ml tubes

-safe for coldroom

-CE approved: education use only

-Used for centrifuging

Centrifuge: Bio-Rad Mini Centrifuge



-Specifications:

-120V

-Low-speed mini centrifuge

-6000 rpm (2000 x g)

-includes microtube and PCR strip tube rotors, adaptors for 0.4 and 5.0 ml tubes

-CE approved: education use only

-Used for centrifuging

Centrifuge: Eppendorf Minispin personal microcentrifuge



-Specifications:

- Capacity: 12 x 1.5/2.0 mL (adapters available for smaller tubes)
- Maximum RCF: 12,100 x g (MiniSpin)
- Speed: 800-14,000rpm (in 100 rpm increments)
- Acceleration time to max. speed: 13 sec
- Deceleration time from max. speed: 12 sec

-Used for centrifuging

Air flow cabinet: Laminar Air Flow BL-1200F



-Specifications:

-Working area: 6'x2'x2'

-Size of filter: 3'x2'x6'

-HEPA filter (with Unit): 2

-PRE filter (with Unit): 2

-Illumination (with Unit): 2x40 watts

-Used for measurements and experiments