

Spesifikasi Teknis dan Gambar

| No | Nama Barang | Merk | Tipe | Spesifikasi | Jumlah | Satuan | Keterangan |
|----|---|---|--------|---|--------|--------|------------|
| 1 | Surface and depth soil temperature (two layer root zone) and Soil moisture (two layer root zone) with datalogger and wifi IOT | 1. Mega 2560 R3 Arduino 2. Soil Probe Soil Moisture Sensor | | 1. Mega 2560 R3 Arduino Specifications: Compatible microcontroller with esp8266 wifi IOT-Real Time Clock DS3231 with battery RTC module Arduino Compatible 2. Soil Probe Soil Moisture Sensor Specifications: Compatible Mega 2560 R3 microcontroller-Ds18b20 waterproof temperature sensor-Box electronic 6X-Rainbow Cable + jumper-Micro SD Card Memory 264 GB-Powerbank with solar cell 2 Port 5 volt 20000mAh | 110 | unit | |
| 2 | Water Bath | Memmert | WTB 15 | WATERBATH RACK TYPE WTB15, MEMMERT Ukuran/Dimensi: W x H x D : w(A) x h(C) x d(B) : 482 x 150 x 277 mm Keterangan Lainnya: Temperature Working temperature range : at least 5 above ambient to +100 (depending on ambient pressure) Setting temperature range : +10 to +100 °C Setting accuracy temperature : 0.1 °C Control of standard components : Controller intuitive 3.5" colour graphic display with touch screen Safety Interior Deep-drawn stainless steel tray (stainless steel W.St. 1-4301), without corners and edges for easy cleaning incl. central drain (no disturbing installations) Dimensions W x H x D : w(A) x h(C) x d(B) : 482 x 150 x 277 mm Volume : 17 l Textured stainless steel casing Dimensions w(D) x h(E2) x d(F) : 554 x 328 x 349 mm Electrical data Voltage : 230 V, 50/60 Hz Electrical load : approx. 1420 W Dimensions approx incl. carton w x h x d : 670 x 530 x 400 mm Net weight approx. : 7 kg Gross weight carton approx. : 12 kg Kelengkapan Produk Waterbath WTB15. | 2 | unit | |

| | | | | | | |
|---|--------|--------|---------------|---|---|------|
| 3 | Shaker | TAITEC | Model BR-23UM | <p>WTB15B48829 : Test tube racks, holes 2-row racks, 38 holes, dia. 18 mm each (bath capacity 3 racks) AKSESORIS WTB 15 MODEL RACK</p> <p>Bioshaker Model BR-23UM, TAITEC</p> <p>Specifications:</p> <ul style="list-style-type: none"> - Temperature Range 5 °C above RT to 70 °C - Shaking motion Reciprocal/Orbital - Temp. control accuracy (*1) ±0.2 to ±0.4°C - Speed range 20 to 300 r/min (200 /min at the upper of stacked units) - Shaking width 25mm (≒ 1inch Platform size 290 × 250 mm (Max. inside height: FP/FH = 270 mm, UM = 315 mm) - Capacity Erlenmeyer flask 500 mL × 4, 2 L × 1 - Door Style Swing lift-up door; Maximum load Approx. 3.5 kg (Platform and Vessel holder included) - Ambient temp. range +5°C to +35°C - Heating method Heater (350 W) - Display (Temp. and speed) Digital display - Safety devices/functions Leakage/Overcurrent breaker, Fuse, Alarm of abnormal sample temp. (Set as desired), Detecting the door opening and closing, Self-diagnosis function for sensor error, Motor current limiter, Overcurrent protection of Peltier (FP) - Dimensions 422 × 550 × 540H mm - Weight Approx. 43 kg - Power supply (*3) AC100V/5A (Need a step-down transformer) - Standard accessories Drain nozzle × 1pc, Drain hose × 1pc | 1 | unit |
|---|--------|--------|---------------|---|---|------|

| | | | | | | |
|---|-------------------------------|------------------|-----------|---|---|----------------|
| 4 | Indomicro HDM1 Digital Camera | Indomicro | - | <p>Specifications:- Sensor : Sony (C); - Sensor size : 1/2 inch (7.2x4.05)(assemble with Cmount 0.5x lens, can achieve 80% field of view); - Live resolution : 1920x1080; - Frame speed : 1920x1080 50fps via USB2.0 1920x1080 60fps via HDMI;- Image record : High speed SD card;- Video record : 1080P 60fps;</p> | 1 | set |
| 5 | Laminar Flow Cabinet | LabTech | LCB-1801V | <p>Laminar Flow Clean Bench-Platinum Model LCB-1801V Specifications: Air Volume 20300³ /h Light UV 40 W x 1 EA ,FL 40W x 1EA HEPA Filter Class 100, purity 0.3 µm particle removal 99,99% Material Interior Stainless Steel 304 Exterior Standard-Epoxy powder coated Electro Galvanized steel Ukuran/DimensiInner 1790x550x650 Outer 1950x800x1880</p> | 2 | unit |
| 6 | Refrigerated Microcentrifuge | Hermle Benchmark | Z216-2420 | <p>High speed microcentrifuge Model Z216-2420, Hermle Benchmark Specifications: - Speed Range: 200 to 15,000 rpm; - Max. RCF: 21,631 xg; - Max. Capacity: 44 x 1.5/2.0 ml; - Temp. Range: -20°C to 40°C; - Dimensions: 11 x 21.6 x 11.4 in. 27.9 x 54.9 x 29 cm.; - Timer: up to 99 hr, 59min and continuous; - Weight: 77lbs (35kg); - Electrical: 120V, 60Hz; - Including: 24 x 1.5/20ml rotor</p> | 1 | unit |
| | | | | | | Surat Dukungan |

| | | | | | | |
|---|---------------------------------------|---------|--------------------------|---|---|------|
| 7 | UV- Transilluminator | MAESTRO | MLB-21 | <p>Specifications:</p> <ul style="list-style-type: none"> - Size : 210 (D)*260 (W) mm - Wave Length : 302 nm and 365 nm - UV Lamp : T5-8W-302 5pcs, T5-8W-365 6pcs - Uniformity : 10% CV - Blocking Cover : Aluminium alloy metal frame - Filter : Ultrasafe UV blocking (block 99,99% uv transmittance) - Light Intensity : 100% or 50% - Power: 100-240 V AC/ 50-60 Hz - Dimensions : 340(W)X 280(D) X 80(H) mm - Weight : 4.3 Kg | 1 | unit |
| 8 | Oven | Memmert | UN55 | <p>Memmert Oven Laboratorium UN 55 53L</p> <p>Specifications:</p> <ul style="list-style-type: none"> - Set temperature range in C min. 5C above ambient up to +300C - Temperature 1 Pt100 sensor DIN class A in 4-wire-circuit - Internals 1 stainless steel grid(s), electropolished - Interior easy-to-clean interior.made of stainless steel, reinforced by deep drawn ribbing with integrated and protected large-area heating on four sides | 1 | unit |
| 9 | Oven Analisis Tanaman dan Tanah | LabTech | HI Temp Oven LDO-250T | <p>LabTech</p> <p>Specifications:</p> <ul style="list-style-type: none"> -Brand Name : LabTech -Product Name : HI Temp Oven LDO-250T -Material : Interior Stainless Steel Exterior Epoxy powder coated steel -Dimensi: Inner 700x600x600 Outer 850x795x1052 - Note : Capacity 252L Temperature Range Ambient +5°C to 350°C Set Accuracy ±1.0°C Uniformity ±2.0°C at 200°C Heater 4kW PID Multi-Function Controller(Optional Programmable Controller) LED 4 Digits Display Timer 99min 59sec. / 99hr 59min / 99days 23hours / Continuous Selectable Hot Air Circulation Blower with Sirocco Fan Insulation Ceramic and Glass Wool Board | 1 | unit |

| | | | | | | |
|----|--------------------------------|---------|---------------------|--|---|------|
| 10 | Sensor Nitrate Horiba Laqua | Horiba | LAQUA NO3 2000-S | <p>Horiba LAQUA NO3 2000-S Specifications: -Brand Name : Horiba - Product Name : LAQUA NO3 2000-S -H Range: -2.000 to 20.000 pH • pH Resolution: 0.1 / 0.01 / 0.001 pH • pH Accuracy: ± 0.003 pH • pH Buffer Groups: USA, NIST, NIST2, DIN, Custom • pH Calibration Points: Up to 5 (USA, NIST, NIST2) / Up to 6 (DIN, Custom) • ORP Range: ± 2000.0 mV • ORP Resolution: 0.1 mV • ORP Accuracy: ± 0.2 mV • ORP Calibration Option: Yes (Up to ± 200 mV) • Ion Range: 0.000 µg/L to 9999 g/L • Ion Units: µg/L ↔ mg/L ↔ g/L, ppm ↔ ppt, mmol/L ↔ mol/L • Ion Resolution: 4 Significant digits • Ion Accuracy: ± 0.3% full scale or ± 0.2 mV, whichever is higher • Ion Calibration Points: Up to 5 • Temperature Range: -30.0 to 130.0 °C / -22.0 to 266.0 °F • Temperature Resolution: 0.1 °C / °F • Temperature Accuracy: ± 0.5 °C / ± 0.9 °F • Temperature Calibration Option: Yes (± 10.0 °C / ± 18.0 °F range in 0.1 °C increments) • Memory: 2000 • Auto Data Log: Yes • Real-time Clock: Yes • Date & Time Stamp: Yes • Measurement Modes: Auto Stable / Auto Hold / Real Time • Offset & Slope Display: Yes (Segment & Average Slopes) • Calibration Alarm: Yes (Programmable: up to 90 days) • Auto Shut-Off: Yes (Programmable: up to 30 mins.) • Electrode Status: On screen display • Diagnostics: Yes • Password Setting: Yes • Software Upgrade: Yes • PC / Printer Communication: Phono jack (USB / RS232C) • Meter Inputs: 2 x BNC, 2 x phono (ATC), DC sockets • Display: 5" Custom LCD with backlight and 320 segments • Power Requirement: AC adaptor 100 - 240V, 50 - 60Hz • Dimensions & Weight: 155(L) x 150(W) x 67(H) mm, 765g</p> | 3 | set |
| 11 | Timbangan | BIOBASE | BA2204B | <p>ANALYTICAL BALANCE 220 G Ukuran/Dimensi 350*215*340mm, Capacity 0-220g, Keterbacaan 0.1mg, Ukuran Skala φ80mm, Ketinggian Ruang Kerja 240mm, Calibration Sumber Daya listrik: AC110/220V±10%, 50/60Hz; Kabel Listrik, tanpa baterai.</p> | 1 | unit |

| | | | | | | | | |
|----|-----------------------------|---|--------------------|--|--|--|---|------|
| 12 | Water Distiller | | W4L | | | <p>* Kapasitas : 4 Liter / Hour * Power Supply : 220/240 V, 50/60Hz, Single * Conductivity (treated water) : 1,5 - 2,0 s/cm * pH : 5,5 - 6,0 * Distillate quality : Pyrogen free * Dimensions : 50 x 15 x 45 cm * weight : 6 kg * Electricals : 220/240 V, 50/60 Hz, single phase Favorite W4L</p> | 1 | unit |
| 13 | Mikroskop Digital | Dino-Lite | AF3113T | | | Resolusi 640 x 480; perbesaran 10x, 50x, 230x; Pemicu MicroTouch built-on; | 1 | unit |
| 14 | Spectrophotometer | HACH | DR3900 | | | Spectrophotometer DR 3900, HACH LANGE standard test methods, LabMart.id | 1 | unit |
| 15 | Digital balance | Ohaus balance ± 0.01 g, Analytical balances Pioneer® PX | Ohaus Scout SPX123 | | | Ohaus Scout SPX123 Portable Balance 120G x 0.001 gram | 2 | unit |
| 16 | USG 4D - 4 Dimensi Portable | SOGATA | SG30P | | | SOGATA SG30P+MICRO CONVEX PROBE+LINEAR PROBE | 1 | unit |
| 17 | Micropipet | Eppendorf | | | | Eppendorf terdiri dari : Micropipette 10 uL, Micropipette 100 uL, Micropipette 200 uL Micropipette 1000 uL | 6 | set |

| | | | | | | |
|----|---------------------------------------|----------------|--|--|---|------|
| 18 | UV-Vis Spectrophotometer | Top Scien | UV-8000TA | Name : UV/Vis Spectrophotometer Double Beam Type : UV-8000TAMerk : Top Scien Technical Specification Wavelength Range : 190-1100nm Spectral bandwidth : 1.0 nm Wavelength Accuracy : ±0.1nm(D2 656.1nm)±0.3nm at full range Stray light : 0.03% T @ 220 nm, 360 nm Wavelength Repeatability : ≤0.1nm Photometric Accuracy : ±0.2%T(0-100%T)±0.002Abs(0-0.5Abs)±0.004Abs(0.5-1.0Abs) Photometric Repeatability : ≤0.1%T(0-100%T)0.001Abs(0-0.5Abs)0.002Abs(0.5-1.0Abs) Stability : ± 0.0004A/h@500nm, Photometric Range : 0-200%T, -0.3-3.0A, 0-9999C, Baseline flatness : ± 0.001A, Noise : ± 0.0004A, Display : 800*480 touch screen, Data Output Port : USB, Print Port : USB Port | 1 | unit |
| 19 | Direct Heat CO ₂ Incubator | Daihan Labtech | LCO-065AI Air Jacket CO ₂ Incubator | Infra-Red CO ₂ Sensor by Digital Signal Processing • Auto Zero Calibration • Precise Digital Controller • Reliable and Accurate Temperature Control • Optional RS-485 Communication Interface • Optional Mobile alert system • Interior chamber: Stainless Steel (SUS 304). Exterior chamber: Epoxy powder coated steel • Door material: Tempered Safety Glass (Inner), Silicone Packing Double Door (Outer) • Safety: Over Temp Protector, Alarm Device, Leakage Breaker • Circulation Fan | 1 | unit |
| 20 | Tangki Nitrogen Cair | | YDS3 | YDS3 Wadah Nitrogen Cair, 3 Liter UKURAN 3 LITER, DIAMETER 50 MM, TINGGI 450 MM | 2 | unit |
| 21 | Laminar Air Flow | Local | SAP LAF-900 | Specification Dimension 900 x 800 x 1800 mm Material Plywood Hepa Filter 99,9999% Effectivity | 1 | unit |

| | | | | | | |
|----|--|----------------------|----------------|---|---|---------------------------|
| 22 | Centrifuge | HETTICH | Universal 320R | Power Supply / Frequency : 200-240 V1 / 50 Hz. - Consumption : 800 VA. - Capacity Unit : 28 x 15 ml. - Speed (RPM)/ RCF : 15000/21382 - Running Time : 1 Sec - 99 Min : 59 Sec - Dimension : H346 x W407 x D698 mm - Weight, approx : 52 kg. - Temperature Setting : -20 to + 40derajat celcius. Include Accessories : - Swing Out Rotor (Cat. No. 1624 = 1 pc). - Carrier (Cat. No. 1742 = 4 pcs). | 2 | unit |
| 23 | Micro Centrifuge | Thermo Scientific | Fresco 21 | Max RCF: 21,100 xg Max Speed: 14,800 rpm Max Noise Level: 56 dBA (ventilated); 50 dBA (refrigerated) Acceleration/Deceleration Rates: 11/12 seconds (ventilated); 10/12 seconds (refrigerated) Time Set Range: 1 min - 99 min; 1 min increments + HOLD mode Temperature Range: Set from -9 °C to +40 °C per 1 °C increment Certifications: CSA certified, CE marked, IVD compliant, Certified biocontainment Technical Standards: IEC 61010-1, IEC 61010-2, IEC 61010-020 Dimensions (H x W x D): 330 x 295 x 445 mm Informasi Lainnya Includes 24 x 1.5/2.0 mL rotor with ClickSeal biocontainment lid | 1 | unit |
| 24 | Cryopreservation Unit | AS ONE | | AS ONE Cryopreservation Unit (Mr. Frosty) Specifications: - Accurate freezing at -1°C/min rate suitable for cryopreservation of cells | 1 | unit |
| 25 | Bioreactor for Animal Cell Culture | ESCO | | CelCradle Stage: 264 W x 359 L X 170 H mm; CelCradle Controller: 137 L x 226 W x 40 D mm: | 1 | unit |
| | | | | | | Surat Dukungan |

| | | | | | | |
|----|-------------------------------|--|-----------|--|---|------|
| 26 | High Pressure Cell Disruption | INFITEK ULTRASONIC CELL DISRUPTOR | USCG-250N | <p>Automatic resonance point and power control, without frequent manual energy adjustment. The 99 hour process control timer controls the total working time: from 1 second to 99 hours, and pauses the current running task in real time. The working time is displayed in cumulative status. On / off pulse timer: ensure high-intensity processing of temperature sensitive samples, and the on and off cycles can be set from 1 second to 99 minutes. Automatic amplitude compensation ensures that the probe amplitude does not change due to load changes during the ultrasonic process. Sample overload and over temperature protection device. Automatic frequency tracking and fault alarm. Easy to operate, direct typing. SPESIFIKASI : Electricity : 220V/50Hz 150W, Frequency : 20KHz, Power regulation : 0%-100%, 5% increment, Ultrasonic mode : Pulse mode / continuous mode, Timing function : LCD, 1s~99h adjustable, Piezoelectric frequency conversion energy converter : CV33, PZT lead zirconate titanate piezoelectric ceramics, Diameter : 44mm, Length : 152mm, Luffing lever material : Titanium alloy material, Tl-6AL-4V, Luffing lever length : 125mm, Processing capacity : 2-100ml (need to select the corresponding horn), Standard probe : φ6mm, Host size : 245*365*245mm, Soundproof box size : 240*250*390mm, Host weight : 8.5Kg, Soundproof box weight : 4.5Kg, Lifting table : Stainless steel 100*100mm.</p> | 1 | unit |
|----|-------------------------------|--|-----------|--|---|------|

| | | | | | | |
|----|-------------------|--------|--------|--|---|------|
| 27 | Shaking Incubator | MASKOT | SIC 50 | <p>MASKOT Shaking Incubator 50 Liter SIC 50 Specifications:</p> <ul style="list-style-type: none"> - Inside Volume : 50 L - Display : LCD Display - Temp. Control : PID Control - Temp. Range : Suhu Kamar + 5-65°C - Temp. Akurasi : ± 0.2°C - Temp. Resolusi : 0.1°C - Shaking Motion Orbital : 20 mm - Shaking Speed : 30-300 rpm - Tray Plate : Spring Wire Rack - Tray Size : 380 x 320 mm - Tray Load : ≤ 10 kg - Maximum Capacity : Flask 100 mL x 16 / 250 mL x 10 - 500 mL x 6 - Standard Capacity : Flask Clamp 250 mL x 8 - Timer : 0-9999 min - Voltage : 220 VAC / 50 Hz - Daya : 600 W - Dimensi Eksterior : 500 x 640 x 480 mm - Dimensi Interior : 455 x 380 x 290 mm | 2 | unit |
| 28 | Freeze Dryer | | | <p>Model BK-FDI0P • Type : Standard chamber with 8 port manifold • Freeze Drying Area : 0.12 m² • Tray 4 pcs • Height Between Trays 50mm • Cold Trap Temperature ≤ -60°C (No load) • Cold Trap Capacity 6L • Cold Trap Size (Diameter*H) φ219*140mm • Vacuum Degree ≤ 5 Pa • Water Capture Capacity 3-4L/24h • Tray Size (D*H) : φ200*20mm • Freeze Drying Time : 36h • Loading Capacity/Shelf (Liquid) : 1.2L • Total Loading Capacity (Liquid) : 2.4L • Drying Chamber Size (Diameter*H) : φ260*465mm • Refrigerant : -60°C; R600a • Cooling System Standard: Air cooling • Power Supply : Standard: 220V 50Hz Optional: 220V 60Hz • Power Consumption 1300W • External Size (W*D*H). mm : 640x610x550 • Package Size(W*D*H).mm: Main Body 695x680x710; Accessory 565x680x510 •</p> | 1 | unit |

| | | | | | | |
|----|-------------------|---------|---------------------|---|------|----------------|
| 29 | Egg Analyzer | ORKA's | Gross Weight 110 kg | 1 | unit | Surat Dukungan |
| 30 | Anaerobic Chamber | DRAWELL | DW-LA1-3 | 1 | unit | Surat Dukungan |

spesifikasi berbeda dengan spek referensi harga
Product specifications:
1. Egg weight: 20.0 gr – 300 gr +/- 0.2gr
2. Albumen height: 2mm - 15mm +/- 0.2mm
3. Yolk color: 1 through 16 according to the DSM
Yolk color fans (support 16 colors)
4. Haugh unit: 0 - 130
5. USDA Grades:
- AA : 72 or more
- A : 71.9 - 60
- B : 59.9 - 31
- C : 30.9 or less
6. Built-in printer
7. Supply voltage: AC90V - 240V 54W
8. Measurement: 300 (W) × 300 (H) × 390 (D) mm
9. Weight: Approx. 8 Kg

Anaerobic Incubator Inkubator Anaerobik
Time for creating anaerobic state < 5 minutes, maintenance time for anaerobic > 12 hours, power rating 600 W,
Spesifikasi dilengkapi diambil dari brosur pdf
Time for creating anaerobic state in sample chamber : < 5 minutes
Time for creating anaerobic state in operation chamber : < 1hr
Anaerobic environment maintenance time : > 13hrs (when no supply of mixed gas)
Temperature Range : RT+3~60°C
Temperature Stability : < ±0.3°C
Temperature Uniformity : < ±1°C
Display Resolution : 0.1°C
Timing Range : 1~9999min
Power Rating 600W
Power Supply AC : 220V, 50HZ
Net/Gross Weight (kg) : 240/320
Interior Chamber Size : (W×D×H)cm 30×19×29
Operation Chamber Size : (W×D×H)cm 82×66×67
Exterior Size : (W×D×H)cm 126×73×138
Package Size : (W×D×H)cm 139×92×156

| | | | | | | | |
|----|---------------------------|-----------|--|--|---|---|------|
| 31 | Autoclave | GEA | | | <p>Merk GEA, PDN KBK14491999004</p> <p>Specifications:</p> <ul style="list-style-type: none"> - Volume 50 Liter - Overall dimension 450 (D) x 1040(W) x 530(H) mm - Heating element power 2 kW - Voltage 220/240v, 50/60 kZ - Weight 37 kg - Temperature display range 50 to 137 °C | 1 | unit |
| 32 | Minitube (Semen Analysis) | Minitube | | | <ul style="list-style-type: none"> - 1x AndroScope - 1x USB-stick with software - 1x Cable for connecting AndroScope to Windows® device - 25x Disposable counting chamber Minitube, 20 µm (Ref. 12050/0220) - 25x Test tube 2 ml with cap (Ref. 14602/0904) - 100x Disposable capillary tube for filling the counting chamber (Ref. 15404/0100) | 1 | unit |
| 33 | Hematology Analyzer | TEKOM | TEK8520 | | <p>Specifications:</p> <ul style="list-style-type: none"> 21 Parameters 3 Diff. 60 Test/ Jam 2 Chamber LAN, LIS Predilute Mode (Untuk Bayi): 20 µL Whole Blood Mode: 10 µL | 1 | unit |
| 34 | Rotor for 2-ml centrifuge | Eppendorf | EPPENDORF Rotor F-45-24-111.5-2 mL for Centrifuge 5702 | | <ul style="list-style-type: none"> Max. Speed : 20.817 x g / 14,000 rpm Max. Capacity : 30 x 1.5 / 2.0 mL tubes | 1 | unit |

| | | | | | | |
|----|----------------------------|-----------|---|--|---|------|
| 35 | Rotor for 50-ml centrifuge | Eppendorf | <p>EPPENDORF Rotor A-4-38 for 15-50 mL for Centrifuge 5702, bucket 100mL.</p> | <p>Eppendorf Rotor A-4-44, ncl. 4 buckets for 2 x 50 mL conical tubes</p> <p>Spesifikasi diambil dari spesifikasi acuan referensi Ukuran/Dimensi 40 x 30 x 30 cm (W x D x H) For use in Centrifuge 5702/R/RH Max. Speed : 3,000 x g / 4,400 rpm Standard rotor for centrifugation of blood collection tubes or 15/50 mL conical tubes Round buckets for vessels with 1.5 mL - 100 mL Aerosol-tight caps for safe centrifugation of hazardous samples optionally available - Include adapter for tube 15 mL (2 set) and tube 50 mL (2 set)</p> | 1 | unit |
| 36 | Chiller Evaporator | | | <p>Applicable Industries Manufacturing Plant, Food & Beverage Shops, Lab Showroom Location United States Video outgoing-inspection Provided Machinery Test Report Provided Warranty of core components 1 Year Core Components Motor, Pump Place of Origin Henan, China Weight 32 KG Warranty 1 Year Key Selling Points High Productivity Condition New Type Water-cooled Brand Name Lanphan Voltage 220V Dimension(L*W*H) 565*460*845 mm Power 1350 Working Temperature Range room temperature Name dsib cryogenic chiller Tank volume (L) 5L lowest no-load temperature(°C) -15 best temperature range(°C) 5~25 Environmental relative humidity (%) ≤70 temperature display mode liquid crystal Feature coolant circulation chiller Sensor index Pt100"</p> | 1 | unit |

| | | | | | | | |
|----|-------------------|---------|--|---|---|------|----------------|
| 37 | Biosafety Cabinet | ULLUN | BIOSAFETY CABINET (BSC) 1900 CLASS II B2 WITH CONTROLLER | <p>External Dimension : 1900 x 850 x 2100 mm Internal Dimension : 1800 x 600 x 600 mm Downflow Velocity : ≥ 0.30 m/s Average (within the standard range of NSF/ANSI 49-2019) Inflow Velocity : ≥ 0.5 m/s Average (NSF/ANSI 49-2019) Airflow System : 70% of the air is recirculated, 30% of the air is expelled to the environment aer being filtered by the HEPA filter HEPA Filter : 2 units H14, 99.996% efficient at 0.3 μm. HEPA Filter Certified Sterilizaon : UVC Lamp Germicidal. Radiaon of UVC ≥ 0.040 mW/cm² Working Lamp : LED T5 Cool Daylight 9W*1 Intensity > 650 Lux Front Window : Glass. Manual Open Slide Up Electrical Socket : 2 Units Waterproof Socket Inside Cabinet Working Area Material : Stainless Steel Material : Steel, Finishing Powder Coang Stand : With Stand and Caster Swivel Polyurethane (Oponal) Voltage : 220 - 240 V, 50/60 Hz Input Power : 340 VA</p> | 1 | unit | Surat Dukungan |
| 38 | Shaker waterbath | Labtech | LSB-030S | <ul style="list-style-type: none"> Internal dimension: 500 x 300 x 240 mm • Overall dimension: 740 x 400 x 305 mm • Capacity: 36 L • Heater: 2.1 kW • Timer: 99hr 59min / Continuous • Temperature range: ambient +5°C to 99°C • Temperature set accuracy: $\pm 0.1^\circ\text{C}$ • Temperature uniformity: $\pm 0.5^\circ\text{C}$ • Shaking speed: 20 to 250 Stroke / min. • Shaking stroke: 24 min. | 1 | unit | |

| | | | | | | | |
|----|-------------------------|------------------------------------|--------------------------------------|--|---|------|----------------|
| 39 | MilliQ-water system | Merck | Milli-Q® IQ 7000 purification system | <p>Merck - Milli-Q® IQ 7000 purification system Part:</p> <p>Merck - Milli-Q® IQ 7000 purifier</p> <p>Q-POD® remote dispenser</p> <p>Connector 2m system to Q-POD</p> <p>Consumable (life time 1 year): IPAK</p> <p>Meta polishing cartridge</p> <p>IPAK Quanta polishing cartridge</p> <p>Millipak 0.22 um filter</p> <p>Spare part: TOC A1 lamp (life time 365 days)</p> <p>Oxidation lamp (life time 730 days)</p> <p>Installation: Milli-Q IQ 7000, Travel Zone 1</p> <p>Feed water : RO/Destill water</p> <p>Product water: Water Type 1 (ultrapure water)</p> <p>Floor price include : Training and Installation</p> | 2 | unit | Surat Dukungan |
| 40 | ATP bioluminescence kit | ATP Determination Kit Thermofisher | | <p>ATP Determination Kit Thermofisher, 200-1,000 assays A22066ATP Determination Kit</p> <p>Specifications:• Luminescence is monitored at ~560 nm using a luminometer• Can detect as little as 0.1 picomole of pre-existing ATP, or ATP as it is being formed in kinetic systems• Luciferase and luciferin are packaged separately, which enables researchers to optimize conditions for their samples and instruments• Includes sufficient reagents to perform 200 ATP assays using 500 µL sample volumes or 1,000 ATP assays using 100 µL sample volumes</p> | 2 | unit | |

| | | | | | | | |
|----|--------------------------|------------------|--------------------|--|---|------|-----------------------|
| 41 | Nano Drop | Allsheng Nano | 400A | <p>TANPA MEREK NANODROP SPECTROPHOTOMETER 400A 1. Nano-400A is a basic micro-volume UV spectrophotometer designed (only 3 types of wavelength: 260nm, 280nm and 365nm) for the measurement of nucleic acids and proteins.</p> <p>2. Android system operation, 7 inch touch screen no computer, APP software, simple interface, easy to use</p> <p>3. To detect the concentration of bacteria and microorganism are more convenient with the OD600 function</p> <p>4. Measures nucleic acid concentration at 260nm and purity using the ratio 260/280</p> <p>5. Measure purified protein concentration at 280nm</p> <p>6. The data can be printed with built-in printer, the data can output via SD-RAM Card and USB memory</p> | 1 | unit | |
| 42 | ANKOM 200 FIBER ANALYZER | ANKOM Technology | 200 Fiber Analyzer | <p>ANKOM 200 FIBER ANALYZER</p> <p>Technical Specifications</p> <p>Sample Size : 0.5-1.0 g</p> <p>Fiber Ranges : 0-100 %</p> <p>Water Supply : Water supply capable of heating water to 50 °C for Crude Fiber and 70 °C for ADF or NDF analysis</p> <p>Samples per Day : Acid Detergent Fiber: 144, Neutral Detergent Fiber: 120, Crude Fiber: 96</p> <p>Instrument Dimensions : 40.6 cm (16 in) L x 50.8 cm (20 in) W x 22.9 cm (9 in) H</p> <p>Weight : 20 kg (44.1 lbs)</p> <p>Power Requirements : 110-120 V~ 50/60Hz 15A, 220-240 V~ 50/60Hz 10A</p> <p>Ambient Temperature Range : 15-30 °C (59-86 °F)</p> <p>Humidity : 20-60 % RH</p> <p>Waste : Instrument drain hose carries waste fluids to lab drain. Dispose according to lab SOP.</p> <p>Consumable Type : Fiber Filter Bags (Part #: F57 and F58)</p> | 1 | unit | Surat Dukungan |

| | | | | | | |
|----|--------------------------|---|----------|--|---|------|
| 43 | Centrifuge | BENCHTOP | 320R | BENCHTOP CENTRIFUGE UNIVERSAL 320R Power Supply / Frequency : 200-240 V1 / 50 Hz. - Consumption : 800 VA. - Capacity Unit : 28 x 15 ml. - Speed (RPM)/ RCF : 4,000 / 2,451 - Running Time : 1 Sec - 99 Min : 59 Sec - Dimension : H346 x W407 x D698 mm - Weight, approx : 52 kg. - Temperature Setting : -20 to + 40derajat celcius. Include Accessories : - Swing Out Rotor (Cat. No. 1624 = 1 pc). - Carrier (Cat. No. 1742 = 4 pcs). | 2 | unit |
| 44 | Ultra sonicator | Ultrasonic Homogenizer Probe Sonicator For Cell Lysis, Tissue Disruption And Homogenization | | ULTRASONIC HOMOGENIZER PROBE SONICATOR FOR CELL LYSIS, TISSUE DISRUPTION AND HOMOGENIZATION 1. Large LCD digital display. 2. Ultrasonic probe with corrosion-resistant titanium alloy tip. 3. Mixing, blending, emulsifying, and homogenizing solutions. 4. Adjustable ultrasonic power and time. 5. Sound enclosure reduces the high-powered sound waves, while clear door permits viewing of the sample while processing. 6. A variety of optional easy-swap ultrasonic probes available. 7. Compact and lightweight, plug and play, no assembly required. Frequency(KHz) 19,5-20,5KHz Automatic tracking Power(W) 20-1200W adjustable Horn (mm) 20 Disruption Capacity 10- 1000 (ml) Store data 50 sets Temp alarm range 0- 100 c Instrument protection function Over-temp. Duty ratio 0.1-99,9% Display LCD display | 1 | unit |
| 45 | Waterbath with shaker | LabTech | LSB 015S | SHAKING WATER BATH Labtech LSB 015S Capacity : 22 lt, Temperature Range : Ambient +5°C to 99°C, Shaking Speed : 20 to 250 stroke/min, Stroke : Adjustable 15 to 30 min, Heater : 1.4kW, Display : LED 4 Digit Display, Timer : 99hr 59min / continuous, Material Interior : Seamless Stainless Steel (SUS304), Rack: Stainless Steel Spring Rack, Safety : Over Temp. Cut-Off | 1 | unit |

| | | | | | | |
|----|-------------------------------------|-----------|--|---|---|------|
| 46 | Multichannel micropipette 30-300 ul | Eppendorf | 30-300 ul | <p>EPENDORF MULTICHANNEL MICROPIPETTE 30-300UL 8 CHANNEL RESEARCH PLUS, ADJ., 8 - CHANNEL</p> <p>- Fully autoclavable Pipette Brand : Eppendorf - Germany - Operation : Mechanical, separate control button and ejector - Application : Pipetting of aqueous liquids - Ultralight mechanical pipette designed according to the strict criteria of the Eppendorf PhysioCare Concept - User adjustment option to off set inaccuracies when pipetting warm, cold, volatile or high density liquids and return to factory adjustment without calibration - 8 -hannel pipette - Low tip attachment force - Low tip ejection force - Very low weight and operating forces for advanced ergonomics to limit strain - Spring-loaded tip cone for exactly reproducible tip fit</p> | 2 | unit |
| 47 | Laminar Air Flow | Labolytic | VERTICAL LAMINAR AIR FLOW WITH TOUCHSCREEN CONTROL LYLA 6 FEET | <p>External Dimension (W x D x H) : 1960 x 766 x 1280 Internal Dimension (W x D x H) : 1835 x 690 x 665 Kontruksi kabinet Main Body : Electro Galvanized steel finish Epoxy polyester thick 1.2 mm Work Table : Stainless Steel Type 304 Finish Hair Line, thick 1.2 mm Sash window : Tempered glass 6mm Initial Flow : 0.45 m/s (90 fpm) Air Volume (m3/h) : 1653 HEPA Filter Typical Efficiency : >99.999% for particle size at 0.3 micron H14 per EN 1882 Tingkat Kebisingan : <65 dB Intensitas Lampu : >100 LUX Outlet/Stop kontak : 16 A Konsumsi Daya : 250W Dimensi Maximal pengiriman : 2110 x 916 x 1580 (W x D x H) (Without stand) Volume Maximum (M3) (Without Stand) : 3,05 Berat pengiriman / Shipping Weight : ± 281 kg</p> | 1 | unit |
| 48 | Microsentrifuse | Kubota | S700TR | <p>Kubota - Benchtop Refrigerated Centrifuge S700TR, Microtube Rotor - K00-0392a</p> | 1 | unit |

| | | | | | |
|----|---------------------------------|--|---|---|------|
| 49 | Microplate incubator and shaker | | <p>Speed range: 300 -1200 rpm Shaking orbit: 2mm (horizontal) Temperature control range: R.T.+5°C - 70°C Temperature stability at 37°C: ±0.2°C Digital time setting: 1min to 99h 59min or short mix Platform temperature uniformity: ≤±0.5°C Temperature display accuracy: 0.1°C Heating speed: ≤25 min (20°C to 70°C) Sample capacity: 4 plates Voltage: AC 110V or AC 220V, 50/60 Hz Power: 250W</p> | 1 | unit |
| 50 | Digital microscope | <p>PHYWE BINOCULAR DIGITAL MICROSCOPE B-290TB, 1000X, PLAN, WITH WINDOWS-TABLET PC</p> | <p>Observation mode: Brightfield. Head: Binocular, 360° rotating and 30° inclined. Interpupillary distance from 48 to 75 mm; dioptic adjustment on left eyepiece. Built-in 3.1 MP camera. Dioptic adjustment: On the left eyepiece tube. Eyepieces: WF10x/20 mm, high eye-point and secured by screw. Nosepiece: Quadruple revolving nosepiece, rotation on ball bearings. Objectives: N-PLAN 4x/0.10; N-PLAN 10x/0.25; N-PLAN 40x/0.65 N-PLAN 100x/1.25 (Oil/Water) All with anti-fungus treatment. Specimen stage: Double layer rackless mechanical sliding stage, 150x139 mm, 75x33 mm X-Y movement range. Vernier scale on the two axes, accuracy: 0.1 mm. Focusing: Coaxial coarse and fine focusing mechanism with limit stop to prevent the contact between objective and specimen. Adjustable tension of coarse focusing knob. Condenser: Abbe N.A. 1.25, with objective-coded iris diaphragm, focusable and centerable. Illumination (Fixed Koehler type): X-LED3 type with white 3.6 W LED (6,300 K) and light intensity control. Multi-plug 100-240Vac/6Vdc external power supply. Tablet : Operating system : Windows 10 (64Bit) CPU : Gemini-Lake, N4100 CPU speed : 1.10 GHz Graphic card : Intel® HD Graphics 600 RAM : Ram 6 GB LPDDR3 Display size : LED 10.1" IPS Multi Touch Screen Display resolution : 1920x1200 Storage : Hdd 128 GB Network : WiFi (2.4G / 5G) - Bluetooth 5.0 Input ports : USB-C (1 USB2.0 for battery charge, 1 USB3.0) - Micro SD card reader Output ports : Microphone - Headphones - Micro HDMI Battery Type :</p> | 1 | unit |

| | | | | | | | |
|----|-----------------------|-------|--------------------------|---|---|------|-----------------------|
| 51 | ANKOM Daisy Incubator | ANKOM | Daisy Incubator SKU D200 | <p>Lithium-ion Camera : Digital camera resolution : 3MP Signal output : USB 2.0 Sensor Size : 1/2.5" Sensor technology : CMOS Image format : 4/3 Full Image size : 2048 x 1536 Pixel size : 2.2 x 2.2 micron Frame rate full resolution : 5 frames/sec Frame rate other resolutions : 8 fps (1280x1024) - 30 fps (640x480)</p> <p>ANKOM Daisy Incubator SKU D200; Instrument Specs: Dimensions: 144 cm wide x 47 cm deep x 64 cm high; Weight: 34 kg; Power Requirements: 110-240V, 50/60 Hz; Filter Bag Type: F57; Operating Temperature: 39.5 °C; Sample Specs: Sample size: 0.25-1.0 g; Samples per batch: >100</p> | 1 | unit | Surat Dukungan |
|----|-----------------------|-------|--------------------------|---|---|------|-----------------------|

| | | | | | | |
|----|-------------------------------|-------|---------|---|---|------|
| 52 | Micro Centrifuge - 20-40 C | OHAUS | FC5515R | <p>OHAUS - Frontier™ 5000 Series Micro Type FC5515R</p> <p>Speed Range 200 rpm – 15,200 rpm Maximum Relative Centrifuge Force (x g) 21,953 g Maximum Capacity(Rotor) 44 x 1.5 / 2.0ml; 12 x 5 ml Refrigeration Range -4 °F – 104 °F (-20 °C – 40 °C) Program memories 99 Rotor In Package Not applicable Acceleration Gear 10 Deceleration Gear 10 Dimensions 22.1 in x 11.5 in x 11.3 in (561 mm x 292 mm x 287 mm) (LxHxW) Display LCD with backlight Lid lock Motor driven Net Weight 77 lb (35 kg) Noise Level ≤57±2 dB(A) Power AC Power (Included) Power Consumption 560 W Pre-cool time From room temperature to 4°C < 10min Rotor Compatibility Angle 24x1.5/2.0ml BIOSEALS V2; Angle 30 x 1.5 ml / 2.0 ml Sealable; Angle 44 x 1.5 / 2.0 ml ID V2; Angle 12 x 5 ml Sealable; Angle 4 x 8 place PCR Strips Rotor Recognition Method Manual Running Time Continuous; 10 sec to 99 h 59 min 59 sec Safety Certification CE; FCC Working Environment 36°F – 95°F, 80%RH, non-condensing (2°C – 35°C, 80%RH, non-condensing)</p> | 1 | unit |
|----|-------------------------------|-------|---------|---|---|------|

| | | | | | | |
|----|---------------------------|-------|--------|--|---|------|
| 53 | Multi-Function Centrifuge | OHAUS | FC5706 | <p>Ohaus - Frontier™ 5000 Series Micro Type FC5706</p> <p>Speed Range 200 rpm – 6,000 rpm</p> <p>Maximum Relative Centrifuge Force (x g) 4,427 g</p> <p>Maximum Capacity(Rotor) 6 x 50 ml</p> <p>Rotor In Package Not applicable</p> <p>Acceleration Gear 10</p> <p>Deceleration Gear 10</p> <p>Dimensions 15.4 in x 10.5 in x 11.5 in (392 mm x 266 mm x 291 mm) (LxHxW)</p> <p>Display LCD with backlight</p> <p>Lid lock Motor driven</p> <p>Net Weight 23 lb (10.5 kg)</p> <p>Noise Level $\leq 60 \pm 2$ dB(A)</p> <p>Power AC Power (Included)</p> <p>Power Consumption 100 W</p> <p>Pre-cool time Not applicable</p> <p>Rotor Compatibility Swing Out Rotor 6 x 5 ml; Angle 12 x 15ml; Angle 6 x 50 ml</p> <p>Rotor Recognition Method Manual</p> <p>Running Time Continuous; 10 sec to 99 h 59 min 59 sec</p> <p>Safety Certification CE; FCC</p> <p>Working Environment 36°F – 95°F, 80%RH, non-condensing (2°C – 35°C, 80%RH, non-condensing)</p> | 1 | unit |
|----|---------------------------|-------|--------|--|---|------|

| | | | | | | |
|----|--------------------|-------|---------|--|---|------|
| 54 | Analytical Balance | OHAUS | PX224/E | <p>OHAUS - Pioneer Analytical PX224/E Maximum Capacity 220 g Readability 0.1 mg Pan Size 90 mm Internal Calibration Not Applicable Draft Shield Included Auto Door Not Applicable Auxiliary Display Model Available as an Accessory Battery Life Not Applicable Built-in Ionizer No Communication USB; RS232 Dimensions 321 mm x 309 mm x 209 mm (LxHxW) Display 2-Line LCD with Backlight In-Use Cover Included Legal for Trade Nonlinearity ± 0.0002 g Minimum Weight (USP, 0.1%, typical) 200 mg Net Weight 10 lb (4.5 kg) Pan Construction Stainless Steel Power AC Adapter (Included) Repeatability, typical 0.0001 g Stabilization Time 3 s Tare Range To capacity by subtraction Working Environment operability guaranteed between 41°F and 104°F; 50°F – 86°F, 80%RH, non-condensing (operability guaranteed between 5°C and 40°C; 10°C – 30°C, 80%RH, non-condensing)</p> | 1 | unit |
|----|--------------------|-------|---------|--|---|------|

| | | | | | | |
|----|------------------|---------|-----|--|---|------|
| 55 | Hemoglobinometer | HemoCue | 201 | <p>Principle : Modified azidemethemoglobin reaction; dual wavelengths (570 nm and 880 nm) for compensation of turbidity Calibration : Factory calibrated against the ICSH reference method; needs no further calibration Sample Material : Capillary, venous or arterial whole blood Measurement Range : 0–25.6 g/dL (0–256 g/L, 0–15.9 mmol/L) Results Within 60 seconds Sample Volume ~10 µL Dimensions 160 × 43 × 85 mm (6.30 × 1.69 × 3.35 inches) Weight 350 g (0.77 pounds) with batteries installed Storage Temp. Analyzer: 0–50 °C (32–122 °F) Microcuvettes: unopened 15–30 °C (59–86 °F); three-month open vial stability Operating Temp. 15–30 °C (59–86 °F) Power AC Adapter or 4 AA batteries Interface Printer and HemoCue® Basic Connect™ including optional barcode scanner Quality Control Built-in "selftest"; optional liquid controls</p> | l | unit |
|----|------------------|---------|-----|--|---|------|

| | | | | | | |
|----|------------------|---------|-----|--|---|------|
| 56 | Hemoglobinometer | HemoCue | 301 | <p>Principle : Absorbance measurement of whole blood at an Hb/HbO₂ isobestic point; dual wavelengths (506 nm and 880 nm) for Hb measurement and turbidity compensation</p> <p>Calibration : Factory calibrated against the ICSH reference method; needs no further calibration</p> <p>Sample Material : Capillary, venous or arterial whole blood</p> <p>Measurement Range : 0–25.6 g/dL (0–256 g/L, 0–15.9 mmol/L)</p> <p>Results : ≤3 seconds</p> <p>Sample Volume : ~10 µL</p> <p>Dimensions : 140 × 70 × 160 mm (5.51 × 2.76 × 6.29 inches)</p> <p>Weight : 500 g (1.10 pounds) with batteries installed</p> <p>Storage Temp : Analyzer: 0–50 °C (32–122 °F), Microcuvettes: 10–40 °C (50–104 °F). For unopened vials, the storage temperature can be extended down to -18 °C (-0.4 °F) and up to +50 °C (122 °F) for a period of max 6 weeks.</p> <p>Operating Temp : 10–40 °C (50–104 °F)</p> <p>Power : AC adapter or 4 AA batteries</p> | 2 | unit |
|----|------------------|---------|-----|--|---|------|

| | | | | | | |
|----|------------------|-------|-----------|--|---|------|
| 57 | Texture Analyzer | Imada | FRTS-100N | <p>RESOLUTION : 100N ACCURACY : $\pm 5\%$ F.S. ± 1 digit DATA LOGGING : Sampling frequency: 1000 Hz TEMPERATURE : From 0°C to +40°C DIMENSIONS : H:185 mm L:300 mm P:400 mm Max. sample height: 70 mm WEIGHT : Body: 7.7kg, consolle: 0.8kg CONNETTIVITA : USB, USB flash drive MEASUREMENTS UNITS : N / Kg / lbf / mm / inch HUMIDITY : 20-80% RH CAPACITY : Max. 100N DISPLAY : 4-digit, 0.00 lmm (minimum resolution) SPEED : From 0.1 to 10.0 mm/sec FUNCTIONS Three types of measurement procedures ("Food/Standard", "Program", "Manual"). Add "Favorites" for up to 6 test conditions. Test start with trigger value (trigger). Overload prevention function DISTANCE : Stroke: max 100 mm</p> | 1 | unit |
|----|------------------|-------|-----------|--|---|------|