

सी.एस.आई.आर.-जीनोमिकी और समवेत जीवविज्ञान संस्थान CSIR-INSTITUTE OF GENOMICS & INTEGRATIVE BIOLOGY,

जुबली हॉल के सामने, मॉल रोड, दिल्ली-110007. भारत

Opp. Jublee Hall, Mall Road, Delhi-110007 India फोन/Phone: 011-27667765. टेलिफैक्स: 011- 27662099

इमेल/e.mail:purchase@igib.res.in: वेब/Web: www.igib.res.in

## **PURCHASE ORDER**

P.O No. IGIB/2-1NC/250/24-25(875)/902

Dated: 09.12.2024

M/s. National Scientific Promoters

19. Bisheshwar Nath Road. Lucknow-226001, Uttar Pradesh

Ref: Qut. No. NSP/LKO/24-25/375 Dated: 05.11.2024 and NSP/LKO/24-25/0193 dated: 05.12.2024

The following material should be supplied and Installed on or before 17.02.2025 as per the terms and conditions mentioned on the back of

क्र संs N	Cat No	विवरण/Description	मा त्रा /Q ty/	दरमूल्य/ Unit Rate	कुलमूल्यवमुद्रा/ Amount & Currency (INR)
		Bio-Banking and Archiving Equipment	01	3,20,00,000.00	3,20,00,000.00
-1	TSX70086	Thermo Scientific™ TSK Series Ultra-Low Freezers (Detail Description attached in Annexure 1)	10	Included	Included
2	TSCM48EV	Thermo Scientific™ CryoMed MD 48L w/print 230V, with LN2 supply Tank & Freezing rack (Detail Description attached in Annexure 1)	01	Included	Included
3	7407	Thermo Scientific™ CryoPlus™ 4 Storage System (Detail Description attached in Annexure 1)	01	Included	Included
4	75009520	Thermo Scientific™ Sorvall X4R Pro Centriguge (Detail Description attached in Annexure 1)	01	Included	Included
5	4671100BT	Thermo Scientific™ E1-ClipTip™ Bluetooth™ Electronic Multichannel Pipettes	01	Included	Included
6	CY50985-70	Thermo Scientific <sup>TM</sup> Locator <sup>TM</sup> 6 Plus Rack and Box System	01	Included	Included
7	3380	Thermo Scientific™ Forma™ Steri-Cult™ CO2 Incubator, 232L	01	Included	Included
8	1386	Thermo Scientific 1300 Series A2 Class II, Type A2 Bio Safety Cabinets	01	Included	Included
		Sub Total			3,20,00,000.00
		Add: GST @18%		mer ner Ednesnin senti	57,60,000.00
		Grand Total			3,77,60,000.00

## Total Rs. 3,77,60,000.00 (Rupees Three Crore Seventy Seven Lakh Sixty Thousand only)

- 1. Terms of Delivery: Free Delivery at Store Section of CSIR-IGIB, Mathura Road, New Delhi.
- 2. Warranty: 5 Years from the date of satisfactory Installation.
- 3. Performance Security: In the form of a Bank Guarantee, valid 60 days beyond the warranty period may submit an amount equivalent to 5% of the order value.
- CMC: CMC charges after expiry of warranty period will be applicable @5% of total cost of the entire project work and will covers spare parts of the Equipment. CMC will be awarded as per the requirement of the Institute.

The delivery date should be strictly adhered to otherwise; the Purchase Order is liable to be cancelled.

Kindly acknowledge Receipt

Stores & Purchase Officer

(For & on behalf of Council of Scientific & Industrial Research)

प्रतिलिपि:-

1.भंडार अनुभाग

2.लेखा अनुभाग

3.मांगकर्ता: Dr. Aastha Mishra.Sr.Scientist इस आशय के साथ की वे क्रय आदेश की जाँच ले और अगर कोई त्रुटि हो तो तरंत जानकारी में लाएँ.

4.कार्यालय प्रति

## Terms & Conditions of the Purchase Order

- Order Acknowledgement: The Purchase Order to be called hereinafter as 'Order or Contract' should be acknowledged within 14 days
  the date of order, confirming the acceptance of rates and all other conditions of supply. Any variation in specifications or T&C must b
  intimated at the time of acceptance of order. Non-receipt of order acceptance within the stipulated period may lead to cancellation of the
  order.
- 2. Order Amendment/corrigendum: Any order amendment/corrigendum made subsequent to this order shall be treated as part of the order.
- 3. <u>Mode of Dispatch:</u> Goods must be dispatched by Road/Rail/Air as specified in the order along with the applicable transportation/freight charges and relevant bill should be submitted with the GR/RR/AWB, wherever applicable.
- 4. <u>Intimation of Shipment/Delivery of Material:</u> Immediately on delivery of goods at CSIR-IGIB Stores Section or dispatch from supplier's premises, the supplier shall notify the purchaser, the complete details of dispatch on Email to <u>purchase@igib.res.in</u>, <u>store@igib.res.in</u> along with the following documents:
  - (a) Copy of Supplier's Invoice
  - (b) Copy of Packing list;
  - (c) Copy of Insurance certificate, if required under the contract:
  - (d) Copy of Road/Railway/Air receipt/Consignment note/Delivery Challan;
  - (e) Copy of Manufacturer's warranty certificate;

Original documents shall be submitted by Registered Post/Speed Post or in person to the Stores Section, failing compliance of the above, the supplier will be responsible for any consequent expenses or delays in payment etc.

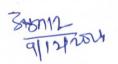
- 5. <u>Delivery Timings:</u> The material may be arranged to be delivered ONLY in Stores Section of CSIR-IGIB at Mall Road or Mathura Road as specified in the Order, between 9.30 am to 12.00 pm and 2.00 pm to 4.30 pm on all working days. CSIR-IGIB follows a week of 5-working days.
- Additional charges such as packing, forwarding, Insurance and GST etc. will not be paid unless specifically mentioned in the order and supported by payees' Receipts or original vouchers.
- 7. Packing: The items ordered should be properly and securely packed in a manner that would be normally acceptable to insurance companies. The consignment should be packed in such a manner that it would withstand all types of transportation hazards until delivery to the consignee.
- 8. Packing of Special Material: Packing of material should be done keeping in view the nature of the material i.e. hazardous, perishable and requiring low temperature or Dry Ice.
- 9. <u>Invoice/Bill:</u> Supplier's Invoice indicating *inter-alia* description and specification of the goods, quantity, unit price, total value and currency of the Invoice, should be submitted at the earliest to the Stores Section of CSIR-IGIB. The Invoice/Bill duly typed and signed should be prepared in Triplicate and submitted for processing payment. It should also be pre-receipted and **affixed with REVENUE STAMP**.
- 10. Nomenclature of Items: The nomenclature used for the item description in the Invoice/Bill as well as the Delivery Note/Challan and packing list etc. should be identical to that used in the order. The dispatch particulars including the name of the transporter should also be mentioned in the Invoice(s).
- 11. The number & date & serial no. of the articles of the order must be mentioned in the Invoice/Bill & the rate must be in accordance with your original quotation/our Order. Any variation in price & specifications must be intimated before affecting the supply.
- 12. GST Number: Please indicate your GST Number on your Proforma Invoice/Bill. GST No. of CSIR-IGIB is 07AAATC2716R4ZE.
- 13. <u>Mode of Payment:</u> Payment of your Invoice/Bill shall, normally, be made within Thirty Days on receipt of article in good working condition through RTGS. Details of your Bank account may be mentioned in your Invoice/Bill.
- 14. <u>Inspection of the Material:</u> The inspection will be carried out at IGIB, Delhi and all damaged or/and unapproved goods shall be returned at your cost and risk and the incidental expenses incurred thereon shall be recoverable from any of your bills. The installation of equipment/instrument where ever necessary will be done by the supplier on free of cost before releasing the payment.
- 15. Return of Damaged/Rejected Goods: All damaged or unapproved goods shall be returned at your cost & risk and the incidental expenses incurred thereon shall be recoverable from any of your Invoice/Bill.
- 16. Liquidated Damages/Penalty: Subject to Force Majeure below, if the supplier fails to deliver any or all of the Goods or to perform the Services within the period(s) specified in the Contract, the Purchaser shall, without prejudice to its other remedies under the Contract, deduct from the order value, as penalty, a sum equivalent to 0.5% of the delivered price of the delayed Goods or unperformed Services or contract value in case the delivered price of the delayed goods or unperformed services cannot be ascertained from the contract, for each week or part thereof of delay until actual delivery or performance, up to a maximum deduction of 10%. Once the maximum is reached, the Purchaser may consider termination of the Contract..

The same penalty rate shall be leviable in case of delay in installation.

- 17. **FORCE MAJEURE:** The Supplier shall not be liable for forfeiture of its performance security, liquidated damages or termination for default, if and to the extent that, its delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure. For purposes of this Clause, "Force Majeure" means an event beyond the control of the Supplier and not involving the Supplier's fault or negligence and not foreseeable. Such events may include, but are not limited to, acts of the Purchaser either in its sovereign or contractual capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions and freight embargoes.
- 18. Printed conditions, if any, sent along with the quotation shall not be binding, unless specifically agreed by us.
- 19. Dispute Settlement: All disputes will be subject to the Delhi International Arbitration Centre (DIAC), Delhi High Court, New Delhi.

## Annexure 1

क्रसंSN	Cat No	विवरण/Description	मात्रा/Qty/
		Bio-Banking and Archiving Equipment	
1	TSX70086	Thermo Scientific <sup>TM</sup> TSK Series Ultra-Low Freezers	10
	Included	Wireless data logger and asset management system	01
	Included	Access key option card Access control, Includes five key cards. Supports ISO 15693 and ISO14443 Protocols.	10
	Included	LN22 Backup system, Maintains temperature down to -80°C with liquid Nitrogen In case of part failures and power failures	10
	Included	Indigenous racks for TSX70086	140
	Included	Indigenous Servo Stabilizer 5KVA	10
	Included	Computer workstation (Lenovo/Dell/HP) as per tender specs	01
	8121	LN2 SUPPLY TANK 230 LITER (Thermo Scientific <sup>TM</sup> )	05
2.	TSCM48EV	Thermo Scientific <sup>TM</sup> CryoMed MD 48L w/print 230V, with LN2 supply Tank & Freezing rack	01
	Included	CRYOTUBE RACK HOLDER CRF	01
	Included	1.2/2.0ML CRYOTUBE RACK	05
	Included	THERMAL PRINTER PAPER	03
	Included	LN2 SUPPLY TANK 230 LITER	01
3.	7407	Thermo Scientific <sup>TM</sup> CryoPlus <sup>TM</sup> 4 Storage System	01
	Included	Rack for Matrix 2D plates measuring 1.55 in. to 2.15 in. tall	51
	Included	Thermal printer paper (5 rolls/package)	01
	Included	220V, 50 Hz Printer with cable assembly and RS-232 connector kit	01
	Included	LN2 SUPPLY TANK 230 LITER	01
4.	75009520	Thermo Scientific <sup>TM</sup> Sorvall X4R Pro Centriguge	01
	Included	TX-1000 buckets	01
	Included	TX-1000 rotor cross with Slide Coat	01
	Included	TX-1000 Click Seal biocontainment lids	01
	Included	Adapter for vacutainer	01
	Included	Adapter for 50ml	01
	Included	Adapter for 15mL	01
	Included	Adapter for Microplate carrier	01
	Included	Microliter 48 x 2 Aluminum Fixed Angle Rotor	01
150	Included	Secure-Spin mode	01



No.	No		
01.	1386	Thermo Scientific	01
		1300 Series A2 Class II, Type A2 Bio Safety Cabinets Safety Features:  • 4Feet Biosafety cabinet • Cabinet meets NSF/ANSI™ Standard 49. • Real-time airflow adjustments ensure inflow and downflow velocities remain steady. • Pressure sensor filter monitoring measures total airflow across the working area. • Proprietary front window design simplifies cleaning for a safer working environment. • Smart Flow Indicator adjusts airflows as filter resistance changes and visually demonstrates cabinet's ability to compensate to maintain personal protection. Certifications/Compliance:	
		• NSF/ANSI 49, UL, CE  Dimensions:  Exterior without Stand:  1300 W x 1568 H x 800 D mm  39.4 W x 61.8 H x 31.5 D Inches  Height of Stand: Min 750 mm Max 950mm  External Cabinet Height on Stand: 2320 mm Min; 2520 Max  Interior: 1200 W x 780 H x 630 D mm  35.4 W x 30.7 H x 24.8 D Inches  Working Height of Front Window: 10"(254m m) Max. Opening of front window: 21 "(535 mm)  WEIGHT Net: 200 Kgs  ELECTRICAL DATA:  Voltage: 230 V Frequency: 50 Hz  FILTER SPECIFICATIONS:  H14 HEPA EN1822, 99.95% MPPS  CERTICATIONS: NSF / ANSI 49, UL, CE  Sound Level: < 63 dB(A)	

No.	No		
01.	75009520	Thermo Scientific™	01
	3	Sorvall X4R Pro Centrifuge	
		Performance features:	
		Intuitive touch screen user interface simplifies operation with easily	
		accessible menu bar and centrifuge health icon for at-a-glance	
		monitoring.  • Thermo Scientific™ Accumulated Centrifugal Effect (ACE™) integrator	
		function for increased reproducibility.	
		Thermo Scientific™ SMART Spin™ imbalance technology optimizes safety	
		and maximizes acceleration, braking and residual load imbalance for each	
		rotor and bucket option.	
-		Thermo Scientific™ Auto-Lock™ Rotor Exchange:	
		Secure, ergonomic push-button rotor exchange in as little as three	
		seconds with no tools required.  • Full chamber access for cleaning convenience and minimizes risk of	
		contamination.	
		Flexibility to quickly switch between applications and evolve changing	
		laboratory needs.	
		Thermo Scientific™ Click Seal™ Biocontainment Lids:	
		<ul> <li>Biocontainment sealing options for glove-friendly, one-handed</li> </ul>	
		open/close capability are ergonomically designed for both right and left-	
		<ul> <li>handed operations</li> <li>Audible and visual closure cues enhance safety and security</li> </ul>	
		Biocontainment certification by National Institute for Health Protection,	
		Porton Down, UK or TÜV NORD CERT GmbH, Germany	
		Safety and ergonomic features:	
		<ul> <li>Space saving design with compact dimensions to optimize work area at an ergonomic height</li> </ul>	
		Lid safety features promote ergonomic sample loading and unloading and	
		enable easy cleaning	
		<u>Specifications</u>	
		Certifications/Compliance: EN/UL/IEC 61010-1EN/UL/IEC 61010-2EN/UL/IEC	
		61326-1EN/UL/IEC 61326-2FCC part 15	
		Controller Type: Microprocessor  Description: Sorvall X4R Pro-MD, 220V-240V 50Hz/230V 60Hz	
		<b>Capacity:</b> 4 x 1000 mL Bio Bottles, 196 x 5/7 mL Blood Tubes, 148 x 9/10 mL	
	Annual or spates, decreases against an annual season and any particular decreases	oupacity. 4 x 1000 mb bio bottles, 170 x 3/7 mb bioud rubes, 140 x 9/10 mb	

Microplates with TX-1000 Rotor Max. RCF: 25,830 x g Fixed Angle (with 30 x 2 mL Rotor); 7,197 x g Swing-Out (with H-Flex HS4 rotor) **Product Line: Sorvall** Refrigerated: Yes Display: Full Colour Touch Screen Interface Drive System: Direct, Brushless Induction Low Profile Material: Front, top, sides: PC-ABS plastic painted with 2K PUR-based lacquer; metal housing: cold rolled steel with powder paint; centrifuge bowl: stainless steel; centrifuge feet: rubber Memory: Stores up to 100 events and programs Model: IVD Certified Noise Level: <64 dB(A) Rotor F15-8x50c; 14500 RPM Profile (Acceleration/Braking): Choices of 9 Accel/10 DeCell Rates Program Storage: Up to 100 Programs, including multi-step programming via Touch Screen; Including programmable Pulse options Run Time: Max 99h, 59min, 59sec; also, with continuous and customizable pulse Standards: ISO 14971, ISO 13485, ISO 9001 Temperature Range: -10°C to +40°C, ±2°C Timer: Option to count or down and to set "At start" or "At speed" Type: Benchtop Centrifuge Dimensions (L'x W x H) Exterior: 690 x 746 x 361 mm Length (English) Exterior: 27.2 in. Length (Metric) Exterior: 690 mm Width (English) Exterior: 29.4 in. Width (Metric) Exterior: 746 mm Height (English) Exterior: 14.2 in. Height (English) Exterior Lid Open: 33.9 in. Height (Metric) Exterior: 361 mm Height (Metric) Exterior Lid Open: 861 mm Depth (English): 27.2 in. Depth (Metric): 690 mm Net Weight: 120 kg Voltage: 220-240 V Frequency: 50/60 Hz

1			
02.	Included	TX-1000 buckets	01
03.	Included	TX-1000 rotor cross with Slide Coat	01
04.	Included	TX-1000 Click Seal biocontainment lids	01
05.	Included	Adapter for vacutainer	01
06.	Included	Adapter for 50ml	01
07.	Included	Adapter for 15mL	01
08.	Included	Adapter for Microplate carrier	01
09.	Included	Microliter 48 x 2 Aluminum Fixed Angle Rotor	01
10.	Included	Secure-Spin mode	01

No.	No.		
01.	3308	Thermo Scientific™  Forma™ Steri-Cult™ CO₂ Incubator, 232L  Direct Heat Chamber  • The high-capacity chamber are designed to provide maximum culturing space for high throughput applications	01
		<ul> <li>Polished stainless steel interior with coved corners is designed to be easy-to-clean</li> <li>Active airflow gently distributes air throughout the chamber ensuring homogeneous conditions</li> <li>Gentle airflow circulation is designed to reduce the risk of cross contamination</li> </ul>	
		<ul> <li>Sturdy stainless-steel shelves and supports can be removed without tools for easy cleaning or adjustment</li> <li>IR (Infrared) CO<sub>2</sub> sensor provides precise monitoring and is unaffected by changes in rH setpoint</li> <li>Active Humidity Control</li> </ul>	
		<ul> <li>Humidity level is easily adjustable with no water pan to manage</li> <li>External water reservoir is designed to minimize chamber contamination and allows refilling without opening chamber</li> <li>At-a-glance water level indicator helps prevent sample desiccation</li> <li>140°C Sterilization Cycle</li> </ul>	
		<ul> <li>On-demand 140°C overnight (14 hours) sterilization cycle is independently validated</li> <li>Simplifies cleaning and eliminates the need for separate autoclaving and reassembly of components</li> <li>Designed to effectively eliminate bacteria, mold, yeast, and mycoplasmas</li> </ul>	
		from internal surfaces  ISO Class 5 HEPA Filtration Airflow System  In-chamber HEPA air filtration continuously filters entire chamber volume every 60 seconds  Reaches ISO Class 5 air quality in 5 minutes after door opening  Continuous protection minimizes contaminants settling on interior surfaces	
		Enviro-Scan Microprocessor Control  Easy-to-use, alphanumeric LED display  Flexible, intuitive controls with message centre including process and alarm status messages	

**Specifications** 

Capacity (English): 8.2 cu. ft.

Certifications/Compliance: UL, cUL, CE

Data Outputs: Optional 4-20mA Capacity (Metric): 232.2 L

Chamber Material: Polished Stainless Steel CO2 Concentration Range: 0 to 20% CO2 Sensor Technology: IR Sensor

Lighting: LED

Material: Stainless Steel

Relative Humidity: 95%, Controllable

Temperature Range (Metric): Ambient +5° to 50°C

Type: CO<sub>2</sub> Incubator

Humidity Source: External humidity reservoir

**Dimensions (D x W x H) Interior:** 20.6 x 20.8 x 32.8 in. (52.3 x 52.8 x 83.8 cm)

**Dimensions (L x W x H):**27 x 35 x 39.4 in. (68.6 x 88.9 x 100.1 cm)

Weight (English):330 lb.

Electrical Requirements: 230 V, 50/60 Hz

Voltage:230 V

INCLUDED: 1 CO2 cylinder & 1 Regulator

No.	No		
01.	7407	Thermo Scientific™	01
		CryoPlus™ 4 Storage Systems	
		Van Fashung	
		Key Features	
		16 preset audible and visual alarm combinations provide maximum product protection	
À		Automatic defogger incorporated into the manual fill index to improve	
		visibility during retrieval	
		Liquid level sensor and fill port within vacuum space, for maximum	
		storage and sensor protection	
		<ul> <li>Front-mounted key lock and rear-mounted recessed power switch;</li> </ul>	
		control panel can also be locked	
		Temperature sleeve (included) provides colder temperatures and	
		efficient vapor phase operation	
		Microprocessor Control     Control panel mounted on top for convenient access and easy touchpad	
		programming	
		Digital temperature display sensor located under the lid; this indicates	
		the highest temperature reading inside the tank	
		<ul> <li>24 tricolor LEDs continuously display actual liquid nitrogen level and</li> </ul>	
		high-level/low-level setpoints	
		<ul> <li>Alarm contacts for remote monitoring of storage tank conditions</li> </ul>	
		Durable Construction	
		Low-profile tank with vacuum-insulated, stainless-steel chamber	
		<ul> <li>Counterbalanced lid with foamed-in-place, high density polyurethane insulation; dedicated vent; 100% clearance</li> </ul>	
		Two independent, flexible lid gaskets reduce moisture migration into the	
		chamber	
		Heavy-duty casters	
		<u>Specifications</u>	
		Type: Auto-Fill LN2 Cryo	
		Capacity (English): 19.49 cu. ft.	
		Capacity (Metric): 552 L	
		No. of Doors: 1 Chamber Material: Stainless Steel	
		<b>Dimensions (L x W x H) Exterior:</b> 50 x 43.5 x 47 in. (127 x 110.5 x 119.4 cm)	
		Depth (English) Interior: 27.5 in.	
		Depth (Metric) Interior: 69.9 cm	

		Height (Metric) Exterior: 119.4 cm	
		Length (English) Exterior: 50 in.	
		Length (Metric) Exterior: 127 cm	
		Width (English) Exterior: 43.5 in.	
		Width (Metric) Exterior: 110.5 cm	
		Diameter (English): 39.5 in.	
		Diameter (Metric): 100.3 cm	
		Monitoring Options: Remote Alarm Contacts	
		Voltage: 200/230 V	
		Electrical Requirements: 200 - 230 V 50/60 Hz	
		Frequency: 50/60 Hz	
		Shipping Weight (Metric): 485.3 kg	
		Weight (English): 820 lb.	
		Weight (Metric): 371.9 kg	
		Unit Size: Each	
02.	Included	Rack for Matrix 2D plates measuring 1.55 in. to 2.15 in. tall	51
03.	Included	Thermal printer paper (5 rolls/package)	01
04.	Included	220V, 50 Hz Printer with cable assembly and RS-232 connector kit	01
05.	Included	LN2 SUPPLY TANK 230 LITER	01

N	0.	No			
0	1.	CY50985-70	Thermo Scientific™	01	1
			Locator™ 6 Plus Rack and Box Systems		
			Features:		
			Compact design to minimize space requirements while maximizing storage capacity		
			<ul> <li>Outstanding temperature uniformity: samples are stored below -180°C, even when less than 2 in. (5cm) of liquid nitrogen remains in the vessel</li> </ul>		
			Advanced vacuum insulation to minimize liquid nitrogen evaporation and		
			reduces operating costs		
			<u>Specifications</u>		
			Type: Manual Fill LN2 Dewar		
			Capacity (English): 6.497 cu. ft.		
			Capacity (Metric): 184 L		
			Temperature Range: Below -180°C		
			Insulation: Vacuum		
			Certifications/Compliance: CE, CSA		
	,		Model: Locator 6 Plus		
			Static Holding Time: 185 Days		
			Height (English) Exterior: 37.5 in.		
			Height (Metric) Exterior: 95.3 cm		
			Diameter (English): 37.5 in.		
			Diameter (English) Inside Neck: 8.5 in.		
			Diameter (Metric): 66 cm		
			Diameter (Metric) Inside Neck: 21.5 cm		
			Voltage: 220 V		
			Energy Usage: 0.99L		
			Vial Capacity: 6000		
			Rack Capacity: 6		
			Unit Size: Each		

No.	No		
01.	4671100BT	Thermo Scientific™	01
		E1-ClipTip™ Bluetooth™ Electronic Multichannel Pipettes	
		<u>Specifications</u>	
		Compatible Tips: Clip Tip 1250	
		For Use With: Clip Tip™ 1250	
		Model: Bluetooth	
		Number of Channels: 8	
		Product LineE1-ClipTip™	
		Programmability: Yes	
		Type: Electronic Pipette	
		Volume (Metric): 15 to 1250 μL	
		Increments: 1µL	
		Unit Size: Each	

No.	No		4.0
1.	TSCM48EV	Thermo Scientific™ CryoMed MD 48L w/ print 230v, with LN2 supply tank & freezing rack	01
		<ul> <li>User-friendly operation with enhanced data traceability,</li> <li>Intuitive touchscreen display allows for easy set-up, operation, and review of a freezing run</li> <li>Six pre-set freezing profiles and space for up to 14 user-defined, "custom" freeze profiles</li> <li>Integrated touchscreen UI logs usage and events to support 21 CFR part 11 requirements</li> <li>User security: 3 levels of user accessibility</li> <li>USB data export of .pdf file run logs support 21 CFR part 11</li> <li>"Run last" feature allows the same profile to be run consecutively with the touch of a button</li> <li>PC interface software provides remote operation capabilities, run review, and custom profile creation</li> <li>FDA listed Class II medical device, 510K exempt</li> </ul>	
		Reliable temperature performance for high throughput usage	
		<ul> <li>Dual solenoid valves are designed to balance LN2 injection volume for precise temperature control and accelerated freezing.</li> <li>Preventative maintenance indicator for LN2 solenoid replacement limits downtime.</li> </ul>	
		Specifications Description: General purpose,1.7 cu. ft. (48.1 L) Type: Controlled-rate freezer Temperature Range: +50°C to -180°C. Cabinet Material: Stainless Steel Exterior Finish: Powder-coated Steel Certifications/Compliance: CE Display: Touchscreen user interface Sample Loading: Front-loading Dimensions (D x W x H) Exterior: 24.3 x 49.3 x 21.7 in. (61 x 125.2 x 55.1 cm)	

6		Data Outputs: USB and OPC UA (ethernet)	
		On-Board Datalogging: Yes	
		PC Programmability: PC Interface software supported	
		Connectivity: Thermo Fisher Connect compatible	
		Amperage: 12 A	
		Plug Type: CEE 7/7	
		Electrical Requirements: 220-230V, 50-60Hz	
		Vial Capacity: <1185	
		Weight (English): 192 lb.	
		Unit Size: Each	
02.	Included	CRYOTUBE RACK HOLDER CRF	01
04.	Included	1.2/2.0ML CRYOTUBE RACK	05
05.	Included	THERMAL PRINTER PAPER	01
06.	Included	LN2 SUPPLY TANK 230 LITER	01

No.			
1.	TSX70086	Thermo Scientific™	10
		TSX Series Ultra-Low Freezers	
		<u>Specifications</u>	
		<b>Description:</b> TSX Series Ultra-Low Freezers, 700-Box Capacity, 230 V, 50/60 Hz	
		Type: Ultra-Low Freezer, Upright	
		Capacity (Metric): 949 L	
		Temperature Range: -50°C to -86°C	
		Temperature Resolution: 0.1°C	
		Temperature Stability: 0.2°C	
		Certifications/Compliance: cULus, CE, ENERGYSTAR, EPA SNAP, FDA Class II	
		Style: Upright	
		Display: Touch-Screen LCD	
		Defrost: Manual	
		<b>Dimensions (D x W x H) Exterior:</b> 37.6 x 45.2 x 78 in. (95.5 x 114.8 x 198.1 cm)	
		<b>Dimensions (D x W x H) Interior:</b> 28.3 x 40.1 x 51.2 in. (71.9 x 101.9 x 130.0	
		cm)	
		Depth (English) Exterior: 37.6 in.	
		Depth (English) Interior: 28.3 in.	
		Depth (Metric) Exterior: 95.5 cm	
		Depth (Metric) Interior: 71.9 cm	
		Monitoring Options: Audible and Visual High and Low Temperature Alarms, Wireless	
		Access Security: Standard Key Lock, Padlock Loop, Setpoint and Settings	
		Security (Optional NFC Key Card Access)	
		On-Board Datalogging: Temperature, Events, Diagnostics	
		Connectivity: Thermo Scientific™ Instrument Connect Compatible	
		Smart View Compatibility: Onboard accessory 5V and POE outlets	
		Voltage Compensation: ±10%	
		Vial Capacity: 70,000 x 2 mL	
		Compressor: V-drive	
		Refrigerant: R290 (1st stage), R170 + R290 mix (2nd stage)	
		Holds: 2 in. Boxes (700)	
		Rack Capacity: 28	
2.	Included	Wireless data logger and asset management system	01
3.	Included	Access key option card Access control. Includes five key cards. Supports	10
		ISO15693 and ISO14443 protocols.	

4.	Included	LN22 Backup System, Maintains temperature down to -80°C with liquid nitrogen.in case of part failures and power failures	10
5.	Included	LN2 SUPPLY TANK 230 LITER	05
6.	Included	Indigenous racks for TSX70086	140
7.	Included	Indigenous Servo Stabilizer	10
8.	Included	Computer workstation as per tender specs	01