



**Department of Biochemistry
University of Kerala
Kariavattom, Thiruvananthapuram, Kerala 695 581**

Date: 28 October 2021

BCH/UOK/Plan/NBL/VV9-10/2021

Sealed quotations are invited from the reputed firms/ manufactures/distributors for the supply of **Electrophoresis system, western blot and power pack** with relevant specifications with on or before 15 November 2021 at 4.00 PM. Sealed quotations should be addressed to Principal Investigator, Setting up of neurobiology lab – Department of Biochemistry (Plan Fund), Department of Biochemistry, University of Kerala, Thiruvananthapuram - 695581 with superscription "**Quotation for the supply of Electrophoresis system, western blot and power pack**". The quotation will be opened on 17 November 2021 at 3 PM in the presence of such tenderers or their authorized representatives who may be present at that time. Bidders have to note *Appendix - Technical Specifications* and *Appendix II- Terms and Conditions* and should attach the relevant documents along with the quotation.

APPENDIX - I

Technical specification for Electrophoresis system, western blot apparatus and power pack

Purpose: 1 vertical electrophoresis system for running PAGE, SDS-PAGE, 2D gel electrophoresis, 1 western transfer complete unit with accessories performing effective protein transfer to PVDF or nitrocellulose membranes and 1 compatible power pack for electrophoresis application

SL No.	Technical specifications for electrophoretic unit
1.	System should have a buffer tank with a lid, power cables and electrode assembly
2.	Should be a compact system, versatile without any any tedious assembly procedures. It should be a simple set up and easy-to-use
3.	System should cast and run 4 gels
4.	The system should be compatible for both ready-made pre-cast gels and hand cast gels

5.	Should have side-by-side casting stands made of polycarbonate (2 no.)
6.	Should have casting frames with simple cam closure for providing precise alignment on a flat surface
7.	The casting stand should have secured casting gaskets to ensure leak-free casting
8.	System should have a sealing mechanism that prevents assembly errors during gel casting
9.	System should be provided with short plates and long plates (5 each), the spacers should be permanently bonded with the long plate
10.	Dummy plates should be provided
11.	Should be provided with two 10 well suitable plastic combs
12.	A typical electrophoretic run time for SDS-PAGE should not exceed 45 min (200V)
13.	Should have sample loading guide for easy loading of samples
14.	Should be supplied with SDS PAGE Starter Kit, Protein Marker and other necessary consumables.

SL No.	Technical specifications for Western blot apparatus
1.	System should provide rapid, high quality western transfer
2.	Must accommodate at least two mini gels of size at least 10 * 7.5 cm
3.	Transfer time for both gels must be supported in a time frame of One hour
4.	Overnight transfer must also be taken care
5.	Preferably with a cooling unit to take care of heat generated
6.	The unit should be mountable on a Magnetic Stirrer and should also be cold room compatible.
7.	Buffer requirement should not exceed 450 ml – 500ml per run
8.	Modularity of same tank to run PAGE gels must be available.
9.	Should be available either as a stand alone apparatus or as a module compatible with mini SDS Page Gel running apparatus
10.	Transfer cassettes & electrodes should be color coded to ensure proper orientation of the gel during transfers.
11.	The apparatus should come complete with Gel Holder cassettes , foam pads, modular electrode assemblies, cooling unit within Tank , lower buffer tank and lid with power cables.

SL No.	Technical specifications for power pack
1.	Output range (programmable): 5–250 V, fully adjustable in 1 V steps 0.01–3.0 A, fully adjustable in 1 mA steps 1-300 W
2.	Output terminals: 4 pair recessed banana jacks floating in parallel
3.	Timer: 1–999 min, fully adjustable
4.	Pause/resume run function: YES
5.	Display: LED
6.	Operating conditions: 0-40°C; 0-95% humidity in the absence of condensation

7.	Safety compliance: EN-61010
8.	EMI: Conforms to CE Standards for Emissions and Immunity class A, tested only at 230 V; TÜV EMC certification
9.	Safety features: No-load detection, sudden load change detection, overload/short circuit protection, input line protection, auto power-up after power failure
10.	Input protection: Fuse on both hot and neutral
11.	Input power (actual): 90-120 or 198-264 VAC, 50 or 60 Hz, autoswitching
12.	Should have CE Certification.

APPENDIX – II

Terms and conditions

1. The prices quoted should be that applicable for educational institutions (5% GST)
2. The item should have a warranty of 3 years
3. The firm should extend service within 1 day.
4. Prices are to be quoted FOR DESTINATION (Department of Biochemistry, University of Kerala, Kariavattom). The prices quoted should clearly indicate the 4 following charges: Price of the equipment including taxes; Price of optional accessories if any; Customs duty if any (after submission of custom and excise exemption certificate); Customs Clearance Charges, transportation charges and installation charges. If these details are not provided it will be considered that the price quoted is inclusive of all charges.
5. Technical Bid and Financial Bid must be placed in individual sealed envelopes and these envelopes must be placed inside a bigger envelope.



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