

**All-India Institute of Medical Sciences**  
**Ansari Nagar, New Delhi-29.**  
**(RESEARCH SECTION)**

Ref. No.30/Stores/Micro/AK/2014-15/RS

**Dated: 10.04.2015**

**Subject:** Purchase of PFGE Instrument, for the Deptt. of Microbiology, at AIIMS, New Delhi-29 on proprietary basis- **Inviting comments thereon.**

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The request has been received from Dr. Arti Kapil, Deptt. of Microbiology, AIIMS to purchase the subject item from M/s Bio Rad Laboratories (India) Pvt. Ltd. (Mfd. By M/s Bio-Rad Laboratories, USA) on proprietary basis. The proposal submitted by M/s Bio Rad Laboratories (India) Pvt. Ltd. (Mfd. By M/s Bio-Rad Laboratories, USA) and PAC certifications are attached.

The above documents are being uploaded for open information to submit objections, comments, if any, from any manufacturer regarding proprietary nature of the equipment/item within issue of 15 days giving reference **No. 30/Stores/Micro/AK/2014-15/RS**. The comments should be received by office of Stores Officer (RS), Research Section at AIIMS on or before **27/04/2015 upto 12:30 p.m.**, failing which it will be presumed that any other vendor is having no comment to offer and case will be decided on merits.

**STORES OFFICER (RS)**

**Encl:** Related documents enclosed.

- 1. PAC Certificate enclosed.**
- 2. Specification of equipment.**

**Computer facility: with request for uploading the same in AIIMS websites for the period of 15 days.**

**[Contentprovider.aiims@gmail.com](mailto:Contentprovider.aiims@gmail.com)**

<b>Item name: PFGE Instrument</b>
<b>Quantity: 01 (One)</b>
<b>Warranty/guarantee: 5 years comprehensive warranty</b>

### **Pulsed Field Gel Electrophoresis**

1. System should provide Clamped Homogenous Electric Field
2. System should have reorientation angle range: 0-360°
3. Maximum program blocks: 8 with automatic execution.
4. Should come with 24 programmable autonomously controlled electrodes.
5. Field Inversion (FIGE) should be available with asymmetric forward, reverse voltage
6. Switching Range: 50msec to 18hr
7. Maximum Run Time: 999hours per block
8. System should have allowable Voltage Gradients: 0.6-9 Volts/cm in 0.1 V/cm increments.
9. Effectively resolves DNA fragments in the range of 200kb to >10Mb.
10. Should be capable of upto 15 vector per pulse cycle
11. Secondary pulse generation should be possible
12. Autoalgorithm & interactive algorithm modes should be provided
13. System should have Battery backed up RAM for all parameters in memory of interruption, up to 3hrs
14. Electrophoresis unit capable of running gels of two different sizes: 21 x 14 cm & 14 x 13 cm with 24 platinum electrodes.
15. Electrophoresis unit should have temperature monitoring via precision temperature probe mounted.
16. Cooling system with 75 W of input power at 14°C and operating range 5-25°C.
17. 5 years comprehensive warranty
18. User list must be submitted along with offer
19. Company should be ISO/ISI/EU (European Union) certification.

### **Essential Accessories for 5 years of satisfactory operation;**

- ✓ Variable speed oscillating pump : 220-240V, Flow rate 1liter/min.
- ✓ Casting stand
- ✓ Comb 15 well with comb holder : 2Nos
- ✓ Tygon tubing
- ✓ Non disposable plug mould : 5Nos
- ✓ Disposable plug mould :50Nos
- ✓ Chromosomal grade agarose : 500g
- ✓ Pulsed field certified agarose : 500g
- ✓ UPS: 5 KVA Certification
- ✓ Yeast DNA Standard *Saccharomyces cerevisiae* YNN295



Bio-Rad  
Laboratories (India) Pvt Ltd  
(A wholly owned subsidiary)

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Opposite Fun-Food Village, New Delhi -110037 Phone: 91-11-25065913  
CIN No : - U32109DL1996PTC078494

## PROPRIETARY CERTIFICATE

This is to certify that **CHEF Mapper XA System** that makes use of the patented technologies, as mentioned below, is proprietary to Bio-Rad Laboratories, 1000, Alfred Nobel Drive, Hercules, California USA-94547.

The several patented technologies used in the system are as follows:-

1. **Clamped Homogenous Electric Field Technology (US Patent No. 5549796):** All CHEF systems have 24 platinum electrodes arranged in a hexagonal array controlled by a resistor circuit and these 24 electrodes are "clamped" at intermediate potentials to provide a uniform potential difference across the field.
2. **Dynamic Regulation Technology (US Patent No. 4878008):** Electrodes constantly monitor & sense changes in local buffer conductivity, change in buffer type & pH, gel thickness &/or temperature. Accordingly, potentials are dynamically regulated to maintain uniform fields, thus ensuring high resolution during runs & in between runs.
3. **Programmable Autonomously Controlled Electrodes (US Patent No. 5084157):** The voltage potential of each of the 24 electrode is controlled independently by the firmware

To the best of our knowledge, this technology is only used and supplied by Bio-Rad with its machines. No other manufacturer or vendor can supply the machine with the same technology and utility.

For Bio-Rad Laboratories India P. Ltd.

