



All India Institute of Medical Sciences Jodhpur

Admn/Prop/43/2019-AIIMS.JDH

Dated: - 12th September, 2019

Subject: Purchase of Droplet Digital PCR System for the DBT Sponsored Research Project at AIIMS, Jodhpur on proprietary basis - **Inviting comments thereon.**

The Institute is in the purchase of Droplet Digital PCR System for the DBT Sponsored Research Project at AIIMS, Jodhpur from M/s Bio-Rad Laboratories Inc., Life Science Group, 2000 Alfred Nobel Drive, Hercules, California-94547 on proprietary basis. The proposal submitted by M/s Bio-Rad Laboratories Inc., California and PAC certification by user are attached.

The above document are being uploaded for open information to submit objection, comments, if any from any manufacturer regarding proprietary nature of the equipment within 21days of issue giving reference Admn/Prop/43/2019-AIIMS.JDH. The comments should be received by office of Dean (Research), Research Section at AIIMS, Jodhpur on or before 03rd October, 2019 upto 03:00 PM failing which it will be presumed that any other vendor is having no comment to offer and case will be decided on merits.

Dean (Research)

Enclosed: Related documents enclosed.



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BIO-RAD

Bio-Rad
Laboratories, Inc.

Life Science Group
2000 Alfred Nobel Drive
Berkeley, California 94704
Telephone: 925.576.5000
Fax: 925.576.5000

PROPRIETARY CERTIFICATE

This is to certify that **QX200 Droplet Digital PCR System**, which includes a QX200 Droplet Generator, is a product of Bio-Rad Laboratories, Inc., 1000 Alfred Nobel Drive, Hercules, California 94547 USA, which system is covered by one or more of the following patents and applications owned by Bio-Rad Laboratories, and foreign equivalents thereto:

- U.K. Patent GB2477053B (Droplet-based assay system)
- U.S. Patent App. Pub. No. US-2010-0173364 (Droplet-based assay system)
- U.S. Patent App. Pub. No. US-2012-0028311 (Cartridge with Lysis Chamber and Droplet Generator)
- U.S. Patent App. Pub. No. US-2011-0051798 (System for Mixing Fluids by Coalescence of Multiple Emulsions)
- U.S. Patent App. Pub. No. US-2011-0053392 (System for Forming an Array of Emulsions)
- U.S. Patent App. Pub. No. US-2011-0092373 (System for Transporting Emulsions from an Array to a Detector)
- U.S. Patent App. Pub. No. US-2011-0092376 (System for Droplet based Assays Using an Array of Emulsions)
- U.S. Patent App. Pub. No. US-2011-0084780 (System for Forming an Array of Emulsions)
- U.S. Patent App. Pub. No. US-2011-0117712 (Emulsion Chemistry for Encapsulated Droplets)
- U.S. Patent App. Pub. No. US-2011-0111976 (System for Detection of Spaced Droplets)
- U.S. Patent App. Pub. No. US-2012-0152369 (System for Forming Emulsions)

For Bio-Rad Laboratories (India) Pvt. Ltd.

Authorized Signatory

Patricia Gee

Patricia Gee
Regulatory Affairs Representative
Bio-Rad Laboratories Inc.
Life Science Group
Tel (510)741-6374

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TECHNICAL SPECIFICATION OF DROPLET DIGITAL PCR SYSTEM - 1 NO	
DROPLET DIGITAL PCR SYSTEM, complete as per below mentioned configuration and specifications	
1	Droplet Digital PCR System, complete as per below mentioned configuration and specifications:-
2	Table top, space saving model with latest state of the art technology.
3	Complete, ready to use, setup should be quoted and supplied, which should include Droplet generator, droplet reader, necessary start-up kit and consumables, Thermal Cycler, PC System, Software, all essential accessories, consumables, attachments etc.
4	System should be able to detect rare DNA target copies with high sensitivity, determine copy number variation with high accuracy and measure gene expression level with high precision.
5	Droplet Generator:
6	System should be based on water-oil emulsion droplet technology with microfluidics.
7	System should be able to generate around 20000 uniform picoliter droplets of each sample.
8	Sample size needed: 20 microliter or less
9	Sample capacity: upto 8 samples per cartridge or more.
10	Droplet generator should be ready to use system, supplied with all standard and essential accessories, attachments, etc.
11	Start-up kit of consumables needed for droplet generation should be supplied.
12	Droplet Reader:
13	Suitable for counting PCR positive and PCR negative droplets
14	Reading capacity: upto 96 samples per run
15	Compatible for 96- deep well plate.
16	Sample illumination method: LED
17	Dynamic range: 4 orders or more
18	Two channel detection for FAM(Evagreen) and HEX or Vic dyes.
19	The equipment must be able to read multiplexing assays run with probe base as well as dye base chemistry
20	Should be able to read 1000 droplets/ sec
21	Plate Sealer
22	Plate Sealer suitable for 96 well plate, with support block, sealing frame and power chord.
23	One pack of 100 nos. of compatible seals should be supplied.
24	Thermal Cycler:
25	Compatible thermal cycler with gradient block for 96 well deep-well plate.
26	Model with graphical touch screen cum display should be there
27	Software
28	Software packages for droplet Digital PCR applications which may include features like display of fluorescence measurement per droplet for both channels, show multiplex data per droplet for two channels, Absolute quantitation and copy number variation analysis, setting threshold values for entire sample plate or for individual samples, merging results from replicate wells, graphical and tabular representation of data, Data acquisition and analysis, report generation, export results, etc.
29	Latest available, Licensed version of the software should be supplied
30	At least 2 times of analysis software training should be done.
31	Computer
32	Latest available and factory recommended computer workstations should be provided for control, acquisition+analysis, etc. Computer system should be inclusive of all

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	required hardware, drivers, adequate storage and RAM modules, etc.	
33	Computer system should have sufficient memory to store at least 1000 previous runs data	
34	On Line UPS System (to be supplied locally)	
35	Suitable capacity, compact UPS system with 20 min. backup time should be supplied with the equipment. UPS should be inclusive of sufficient numbers of SMF batteries, battery stand , connecting cables, etc. UPS with built-in batteries will be preferred. UPS should be of Emerson / Liebert/APC brand.	1 No
36	Consumables to be supplied: Sufficient to run 200 samples	
37	Preferred parameters NO Special laboratory alteration or gyroscopic angulation for instrument operation No Special temperature window for instrument operation Partition number must be equal or higher than 20,000 to ensure high dynamic range coverage All Workflow components should be manufactured by same vendor (ddPCR) More than 1000 Publications in reputed international journal as proof of technology	
38	Minimum 25 installations in India , preferentially more than 15 in clinical set up	

Dr. Rishi *A* *Dr. Puri*
Dr. Puri