

अति आवश्यक / महत्वपूर्ण / फोन-0522-2286615

उत्तर प्रदेश पुलिस तकनीकी सेवायें मुख्यालय,

चतुर्थ तल, जवाहर भवन, अशोक मार्ग, लखनऊ

संख्या-टीएस-एमओडी- 04- 2011(एफएसएल)

दिनांक - फरवरी, 2014

सेवा में,

- 1- मेसर्स एम0पी0साइंटिफिक एण्ड इन्स्ट्रुमेंट्स  
लखनऊ।
- 2- मेसर्स ज्ञान साइंटिफिक ट्रेडर्स(इन्डिया) प्रा0लि0,  
लखनऊ।
- 3- मेसर्स आर0पी0एम0 साइंटिफिक,  
लखनऊ।

कृपया अवगत कराना है कि आधुनिकीकरण योजना 2013-14 के अन्तर्गत विधि विज्ञान प्रयोगशाला हेतु 01 अदर आर0टी0पी0सी0आर0 उपकरण कय किये जाने के सम्बन्ध में निविदा आमंत्रित की गई है, जिसमें प्री बिड मीटिंग की तिथि 10.2.14 को समय 11.30 बजे पूर्वान्ह तकनीकी सेवायें मुख्यालय स्थित मीटिंग हाल में प्रस्तावित है। उक्त के अतिरिक्त इस उपकरण के निर्माताओं/प्राधिकृत डीलरों तथा सप्लायर्स भी प्रस्तावित प्री बिड बैठक में प्रतिभाग करने हेतु आमंत्रित है।

अतः अपेक्षा है कि उक्त उपकरण के लिये आहुत प्री बिड बैठक में प्रतिभाग करने का कष्ट करें। यदि उपकरण के निर्माता फर्म/अधिकृत डीलर किन्ही कारण वश प्री बिड बैठक में सम्मिलित नहीं हो पा रहे हैं तो वे अपने विचार/अभिमत मेल के माध्यम से उ0प्र0 पुलिस की वेबसाइट <http://uppolice.gov.in> पर भेज सकते हैं। सुलभता सम्बन्ध हेतु आर0टी0पी0सी0आर0 उपकरण के तकनीकी स्पेशीफिकेशन अवलोकनार्थ संलग्न है।  
संलग्नक यथोपरि

(चन्द्र प्रकाश)

पुलिस अधीक्षक/सहायक निदेशक,  
निमित्त-पुलिस महानिरीक्षक, तकनीकी सेवायें,  
उत्तर प्रदेश।

प्रतिलिपि-पुलिस अधीक्षक/सहायक निदेशक को उ0प्र0 पुलिस के वेबसाइट पर लोड कराने हेतु।


प्रतिलिपि- डा0अर्चना त्रिपाठी, उप निदेशक, एफएसएल, लखनऊ अध्यक्ष तकनीकी समिति, श्री सुरेश वन्द्रा, उप निदेशक, एफएसएल, लखनऊ तथा डा0राजीव पालीवाल को सूचनार्थ एवं नियत तिथि को समय से उपस्थित होने हेतु।

## Real Time PCR

Technical Specifications	Quantity
<p><b>RT PCR Instrument</b></p> <ol style="list-style-type: none"> <li>1. Latest generation 96- well block Thermal Cycling System for forensic applications.</li> <li>2. The instrument should have five-color detection capability to provide flexibility to perform a variety of applications including real time quantitation ,SNP genotyping, gene expression analysis and utilizing internal positive controls.</li> <li>3. The instrument should have advanced optical configuration that support broad range of fluorophore dyes.</li> <li>4. Sample Format 96-well plates or 0.2 ml tubes and optimized for 15 to 100 <math>\mu</math>L.</li> <li>5. The system should be validated for latest forensic applications like human /male DNA quantitation kits with published and validated data. Certification by competent authority/ organization under Government of India viz Director, Center of DNA Fingerprinting &amp; Diagnostics (CDFD) Hyderabad, Center for Cellular And Molecular Biology (CCMB), Hyderabad, Center/ State Forensic Science Laboratories (CFSLs / SFSLS), that Equipment &amp; Kit is validated for forensic use, failing which offer will be rejected.</li> <li>6. A compatible 2K VA online UPS with 2 hours backup should be provided.</li> <li>7. Should have a dedicated compatible desktop computer configuration-- window 7, 1 3 processor, Office-10, 4GB RAM, 1TB Hard disk, 1GB Graphic card, TFT/ LED Monitor- 22 inches and Antivirus with standard brand color jet laser printer.(Internal RAM 256 MB).</li> <li>8. Should have kits and plastic wares, consumables for quantitation of human DNA (400 reactions) and male DNA samples (400 reactions)</li> </ol> <p><b>Software Specifications</b></p> <ol style="list-style-type: none"> <li>9. The instrument should be supplied with licensed software that design probes and primers.</li> <li>10. Applications comparative Ct., Standard Curve, Relative Standard Curve, Allelic Discrimination, Plus/ Minus Dye discrimination Multiple Data Comparison.</li> <li>11. Built in software features for sample quality assessment (inhibition, male/female ratio and degradation index), capability of calculating dilution and reaction setup for HID kits.</li> <li>12. System should be complete with all accessories to run the system properly at the time of installation</li> </ol>	<p>Qty. One</p> <p>Qty. One</p> <p>Qty. One</p> <p>400 reactions human DNA quantitation kit and plastic wares, 400 reactions male DNA quantitation kit and plastic wares.</p>


  
(Rajiv Paliwal)  
S.O. Sero.


  
(Suresh Chandra)  
D.D. Bio. 16/11/14

  
(Dr. Archana Tripathi)  
D.D.Sero. 16/11/14

## Real Time PCR

Technical Specifications	Justification
<ol style="list-style-type: none"> <li>1. Latest generation 96- well block Thermal Cycling System for forensic applications.</li> <li>2. The instrument should have five-color detection capability to provide flexibility to perform a variety of applications including real time quantitation, SNP genotyping, gene expression analysis and utilizing internal positive controls.</li> <li>3. The instrument should have advanced optical configuration that support broad range of fluorophore dyes.</li> <li>4. Sample Format 96-well plates or 0.2 ml tubes and optimized for 15 to 100 <math>\mu</math>L.</li> <li>5. The system should be validated for latest forensic applications like human / male DNA quantitation kits with published and validated data. Certification by competent authority/ organization under Government of India viz Director, Center of DNA Fingerprinting &amp; Diagnostics (CDFD) Hyderabad, Center for Cellular And Molecular Biology (CCMB), Hyderabad, Center/ State Forensic Science Laboratories (CFSLS / SFSLS), that Equipment &amp; Kit is validated for forensic use, failing which offer will be rejected.</li> <li>6. A compatible 2KVA online UPS with 2 hours backup should be provided.</li> <li>7. Should have a dedicated compatible desktop computer configuration-- window 7, 1.3 processor, Office-10, 4GB RAM, 1TB Hard disk, 1GB Graphic card, TFT/ LED Monitor- 22 inches and Antivirus with standard brand color jet laser printer (Internal RAM 256 MB).</li> <li>8. Should have kits and plastic wares, consumables for quantitation of human DNA (400 reactions) and male DNA samples (400 reactions)</li> </ol> <p><b>Software Specifications</b></p> <ol style="list-style-type: none"> <li>9. The instrument should be supplied with licensed software that design probes and primers.</li> <li>10. Applications comparative Ct., Standard Curve, Relative Standard Curve, Allelic Discrimination, Plus/ Minus Dye discrimination Multiple Data Comparison.</li> <li>11. Built in software features for sample quality assessment (inhibition, male/female ratio and degradation index), capability of calculating dilution and reaction setup for H1D kits.</li> <li>12. System should be complete with all accessories to run the system properly at the time of installation</li> </ol>	<ol style="list-style-type: none"> <li>1. 96 well plate preferred by all manufacturers is suitable for high throughput and one block can be used for greater no. of cases.</li> <li>2. Easily calibrated for the range of dyes without requiring the addition of new filter sets, required fluorescence range for emission/ excitation ranges between 450nm to 750 nm ; SNP genotyping to be done in future.</li> <li>3. Allows greater sensitivity for greatest range of dyes; used for application at point no. (2).</li> <li>4 Minimum volume required is 15 to 25<math>\mu</math>L.</li> <li>5. Forensic samples often have a mixture of human male and female DNA specially in sexual assault cases. Validation is required for reproducibility, robustness and reliability of the result, also recommended in BPR &amp; D manual.</li> <li>6.. Run time for 40 cycles for DNA quantitation is about 2 hours.</li> <li>7. Technical requirement</li> <li>8. Technical requirement</li> <li>9. Mandatory for legal reasons.</li> <li>10. Different analysis modules in the software related to quantitation of DNA for analysis with precision and accuracy.</li> <li>11. Sample quality assessment is a prerequisite for reaction set up and also to evaluate factors affecting quantitation.</li> <li>12. For satisfactory installation and working of the instrument for case work</li> </ol>

  
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