

TENDER REF. NO.: KK/232/2026/DSS

**MINISTRY OF HEALTH
NEGARA BRUNEI DARUSSALAM**

**TO SUPPLY, DELIVER, INSTALL, TEST AND COMMISSION
ONE (I) UNIT MICROCHIP ELECTROPHORESIS SYSTEM
FOR FOOD CHEMISTRY LABORATORY, DEPARTMENT OF
SCIENTIFIC SERVICES, MINISTRY OF HEALTH**

TENDER FEE : \$30.00

RECEIPT NO. :

CLOSING DATE : ON TUESDAY, 20th October 2026

TIME : 2.00 PM

FOA :

**THE CHAIRMAN
MINI TENDER BOARD, TENDER BOX
GROUND FLOOR, MINISTRY OF HEALTH
COMMONWEALTH DRIVE
BANDAR SERI BEGAWAN BB3910
NEGARA BRUNEI DARUSSALAM**

[CLUSTERING]

SECTION 2

EQUIPMENT PURCHASE SPECIFICATION

TENDER REFERENCE NO.: KK/232/2026/DSS

INVITATION TO TENDER
TO SUPPLY, DELIVER, INSTALL, TEST AND COMMISSION ONE (1) UNIT MICROCHIP
ELECTROPHORESIS SYSTEM FOR FOOD CHEMISTRY LABORATORY, DEPARTMENT OF
SCIENTIFIC SERVICES, MINISTRY OF HEALTH

NAME OF ITEM	MICROCHIP ELECTROPHORESIS SYSTEM
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NO.	ITEM DESCRIPTIONS AND SPECIFICATIONS
1	<u>GENERAL</u>
1.1	Tenderer is to supply one (1) completely functional, brand new, computer-controlled system of Microchip Electrophoresis (later referred to as ' Instrument ') complete with required accessories needed to carry out DNA applications in food and non-food matrices.
1.2	The Instrument system shall consist of, but not limited to the following major components, complete with all software, hardware and interface necessary to make a fully integrated system required for the detection of DNA in food and non-food matrices: 1. Microchip Electrophoresis System with complete accessories 2. Data Acquisition System with complete accessories 3. Reagents and consumables compatible with the system 4. Other mandatory accessories
1.3	The instrument and its accessories especially the Data Acquisition System has to be a bench-top model.
1.4	The instrument offered must be capable of detecting DNA minimum 1 ng /μl or better in food matrices.
1.6	The instrument must be able to operate in a laboratory condition that range from 15 – 30 °C and a relative humidity of 25 – 80% non-condensing and noncorrosive.
1.7	The year of the model offered must be launched from 2025 onwards.
2	<u>TECHNICAL SPECIFICATIONS</u>
2.1	<u>MICROCHIP ELECTROPHORESIS SYSTEM</u>
2.1.1	The instrument able to perform electrophoresis within microchannels in a quartz-based microchip.
2.1.2	The instrument has to be in a closed system to avoid contaminations.
2.1.3	The instrument must be equipped with automation to carry out analysis such as feature of loading reagents and samples into the instrument.
2.1.4	The instrument able to start the analysis with just simple touch of a start button to perform automatic analysis.
2.1.5	The instrument has high throughput and can analysed minimum of 96 samples at one registered analysis.
2.1.6	The instrument can be set to use minimum 3 microchip set in the instrument to achieve higher throughput samples.
2.1.7	The instrument can generate images: ▪ In migration time ▪ In size fragments. ▪ Resembling to conventional agarose gel electrophoresis.
2.1.8	The microchip supplied can be reused instead of single use.
2.1.9	When running the instrument, it has to be able to perform the following operations automatically:

NO.	ITEM DESCRIPTIONS AND SPECIFICATIONS
	- Initial check of the instrument before analysis – if error is detected, alert / alarm / notification is prompted. - Loading of reagents and samples - Electrophoretic separation and detection - Post analysis check – microchip washed and sample probe washed ready for the next analysis.
2.1.10	When running the analysis, the instrument is able to perform the detection with sample volume of 1 - 15µl
2.1.11	The instrument supplied must be suitable for the application of DNA and RNA.
2.2	<u>DATA ACQUISITION SYSTEM</u>
2.2.1	The instrument must be inclusive of data acquisition system and its auxiliary equipment as well as allowing users for the recording and reviewing of the analysis data.
2.2.2	The data acquisition system must consist of, but not limited to the following components: Desktop PC with complete accessories: - Small Form Factor PC with specifications as recommended by manufacturer. - Comes complete with accessories such as: - Power adapter - Wireless mouse - Wireless keyboard - at least 23-inch monitor (display resolution 1280 x 800 pixels or higher) - External hard disk to back up data, minimum 1TB - Printer to be supplied is preferable Epson Ecotank L3210 model. Other model supplied has to be discussed and agreed by end user.
2.2.3	The data acquisition system shall have the latest Microsoft Office including Word, Excel and PowerPoint preinstalled.
2.2.4	The instrument software designed to use with the instruments to control the system and capture data.
2.2.5	The instrument software designed to assist in achieving requirements for audit trails, electronic signatures and access privileges.
2.3	<u>REAGENTS AND CONSUMABLES</u>
2.3.1	Tenderer shall supplied complete set of reagents and consumables to ensure the instrument is able to perform successfully.
2.3.2	Such reagents and consumables needed to be supplied together with the instrument system are as follows but not limited to:
2.3.3	8 pieces of quartz microchips. Microchips supplied must also be compatible to be used with existing lab instrument (Shimadzu Multina MCE-202)
2.3.4	3 sets of intercalator dyes that is not carcinogenic. This dye has to be compatible with the existing lab instrument (Shimadzu Multina MCE-202) Preferable dye: - SYBR™ Gold or - GelStar Nucleic Acid Gel Stain
2.3.5	3 sets of DNA Ladder for 500 bp fragments to be supplied and used as a reference standard to determine the size and approximate concentration of unknown DNA fragments during electrophoresis. DNA ladder for 500 bp fragments recommended by the instrument manufacturer and does not need user to create library for the ladder.
2.3.6	3 sets of DNA Ladder for 1000 bp fragments to be supplied and used as a reference standard to determine the size and approximate concentration of unknown DNA fragments during electrophoresis.

NO.	ITEM DESCRIPTIONS AND SPECIFICATIONS
	DNA Ladder for 1000 bp fragments recommended by the instrument manufacturer and does not need user to create library for the ladder.
2.3.7	3 bottles of TE Buffer with following concentration and pH value: ▪ Concentration: 10 mM Tris-HCl/ ▪ pH Value: pH 8.0
2.3.8	3 bottles of Microchip cleaning solution for the usage of cleaning microchip.
2.3.8	3 bottles of probe rinsing solution for the usage of rinsing probe.
2.3.9	3 packs of DNA Reagents Kits with specifications: a. Supplied together with DNA Markers b. This reagents kit is compatible for the usage of existing laboratory instrument (Shimadzu Multina MCE-202) c. Analysis size range: 25 bp – 500 bp d. Sizing accuracy: ±5 bp for fragments between 25– 100 bp, and ±5% for fragments between 100–500 bp e. Size resolution: 5 bp separation capacity within 25 to 100 bp and ±5% for fragments between 100–500 bp f. Quantitation range: 0.5 to 50 ng/ul g. Detection sensitivity: 0.2 ng /ul
2.3.10	3 packs of DNA Reagents kits with specifications: a. Supplied together with DNA Markers b. This reagents kit is to be compatible for the usage of existing laboratory instrument (Shimadzu Multina MCE-202) c. Analysis size range: 100 bp – 1000 bp d. Sizing accuracy: 15 % for 100 bp to 1000 bp e. Size resolution: ±5 % for fragments between 100– 500 bp, ±10 % for fragments between 500 – 1000 bp f. Quantitation range: 0.5 to 50 ng/ul g. Detection sensitivity: 0.2 ng /ul
2.3.12	Micro Centrifuge Tubes, Vials and Adhesive Films: Tenderer has to supply tubes and vials for the usage of sample analysis and compatible to the instrument system. Tubes and vials supplies must be sterile, certified DNase and RNase free. If any of the items not mentioned below but needed to run analysis, the tenderer has to include the items to be supplied. Items are as follows (Item 2.3.13 until 2.3.18) :
2.3.13	100 pieces of 96-well PCR plates / Microplates
2.3.14	1 box of individual PCR tubes and its cap
2.3.15	300 pieces of 5.0 mL Screw Cap Tubes
2.3.16	3 boxes of 1.5 mL Centrifuge Tubes and its cap
2.3.17	3 boxes of 0.6 mL vials
2.3.18	5 packs of Adhesive Foil Seals for Microplates.
2.3.19	All consumable mentioned in Item 2.3.13 until 2.3.18 to be quoted has to be agreed with the end-user
3	OTHER MANDATORY ACCESSORIES
3.1	1 unit of Dessicator of the following specification: ▪ Vertical cabinet, minimum 50 L capacity ▪ Automatic dehumidification and dessicant regeneration cycle operates continuously ▪ Co-polyester construction blocks 99% UV light ▪ Resistant to staining, crazing and chemical attack ▪ Minimum 3 shelves, removable and perforated ▪ Large door with digital hygrometer, includes seal, tab latches and security loops

NO.	ITEM DESCRIPTIONS AND SPECIFICATIONS
3.2	1 unit of Vortex Mixer of the following specification or better: ▪ Able to achieve uniform homogenization when mixing dye, buffer, DNA samples, ladder without introducing shearing forces, content spillage and forming aggressive micro bubbles ▪ Variable speed range from 200 rpm to 3000 rpm ▪ Has digital timer that can time in seconds and minutes ▪ Operation modes: Dual mode and interchangeable between pulse mode and continuous mode ▪ Head adapter: ✓ Can vortex individual tube of volume capacity ✓ 0.6 mL – 2.0 mL tubes o Can vortex 96-well PCR plate / microplate o Adapter is easily interchangeable between individual tube adapter and microplate adapter ▪ Physical stability: Heavy and weighted casing with vibration absorber to prevent the vortex mixer from moving around the lab bench when operational.
3.3	Pipette and Pipette Tips:
3.3.1	▪ unit of pipettor ▪ Volume: 100 ul – 1000 ul • When supplied, pipette must be: ✓ Calibrated by ISO/IEC 17025 accredited calibration laboratory with a calibration certificate supplied ✓ A copy of laboratory's scope of accreditation and current accreditation schedule to be provided ✓ The laboratory's Calibration and ✓ Measurement Capability (CMC) shall be stated and sufficient to ensure compliance with ISO 8655 maximum permissible errors for the specified pipette volume range • 20 containers of filtered pipette tips that is compatible with the pipettor • Pipette tips supplied shall be sterile and certified DNase and RNase free
3.3.2	▪ 2 units of pipettor ▪ Volume: 1 ul – 10 ul ▪ When supplied, pipette must be: o Calibrated by ISO/IEC 17025 accredited calibration laboratory with a calibration certificate supplied ✓ A copy of laboratory's scope of accreditation and current accreditation schedule to be provided ✓ The laboratory's Calibration and ✓ Measurement Capability (CMC) shall be stated and sufficient to ensure compliance with ISO 8655 maximum permissible errors for the specified pipette volume range ▪ 20 containers of filtered pipette tips that is compatible with the pipettor ▪ Pipette tips supplied shall be sterile and certified ▪ DNase and RNase free
3.3.3	▪ unit of pipettor ▪ Volume: 0.1 ul – 2ul - When supplied, pipette must be: ✓ Calibrated by ISO/IEC 17025 accredited calibration laboratory with a calibration certificate supplied ✓ A copy of laboratory's scope of accreditation and current accreditation schedule to be provided ✓ The laboratory's Calibration and ✓ Measurement Capability (CMC) shall be stated and sufficient to ensure compliance with ISO 8655 maximum permissible errors for the specified pipette volume range ▪ 20 containers of filtered pipette tips that is compatible with the pipettor ▪ Pipette tips supplied shall be sterile and certified DNase and RNase free
3.3.4	▪ 1 unit of pipettor ▪ Volume: 10 ul – 100 ul ▪ When supplied, pipette must be:

NO.	ITEM DESCRIPTIONS AND SPECIFICATIONS
	✓ Calibrated by ISO/IEC 17025 accredited calibration laboratory with a calibration certificate supplied ✓ A copy of laboratory's scope of accreditation and current accreditation schedule to be provided ✓ The laboratory's Calibration and ✓ Measurement Capability (CMC) shall be stated and sufficient to ensure compliance with ISO 8655 maximum permissible errors for the specified pipette volume range ▪ 20 containers of filtered pipette tips that is compatible with the pipettor ▪ Pipette tips supplied shall be sterile and certified DNase and RNase free
4	<u>POWER SUPPLY</u> All electrical and electric components in the system must be able to utilise main power supply of 220 – 240 V AC, 50 – 60 Hz. Otherwise, vendor to include additional items or work required to ensure successful operation.
5	<u>SITE PREPARATION</u>
5.1	It is <u>MANDATORY</u> for the tenderer to do site visit prior to tender submission to discuss site requirements. Non-attendance will be considered as non-compliance. Proof of attendance is needed to be attached together when submitting the tender.
5.2	Tenderer shall ensure that the site preparation for the placement of the system taking into the consideration on the safety of the end user during the operation of the instrument.
5.3	The site preparation needed for the successful installation and operation of the DNA Detection System should include, but not limited to: a. Electrical systems b. Waste drainage system c. Workbench (modification or fabrication for space and weight compatibility) Any other deemed necessary to ensure successful and safe installation and operation of the system should be included.
5.4	The site preparation details should be listed out in the quotation / document submitted
6	<u>TRAINING</u> Training shall be provided, at no additional cost, as follows:
6.1	On-site training for ALL staff members expected to handle the instrument. Please ensure that adequate time is allocated such that training will take place in small groups to minimize staff shortage in the laboratory.
6.2	Certificate of competence is to be issued to all trainees after completion of training.
6.3	Tenderer shall provide training notes (both in soft copy and hard copy) to all staff members who joined the training.
6.4	The successful tenderer needs to ensure the key users are updated on the current or relevant information related to the system used.
	Tenderer should provide <u>ONE</u> (1) off-site benchwork training or any capacity building program at an accredited laboratory / one Asia country as chosen by the end user for <u>THREE</u> (3) key users for not less than five (5) days . The training / capacity building program has to be related to molecular biology application in food. All expenses for attending the mentioned program above shall be borne by the vendor; including full registration fee, insurance, air ticket, daily allowance, accommodation, transport to and from the airport and place of training.
7	<u>WARRANTY</u>
7.1	A minimum of one (1) year warranty for manufacturer's defect on the hardware, software and all cost of repairs and/or replacements should be included
7.2	After-sales services must be provided for the product after one (1) year
7.3	One-off preventive maintenance to be carried out just before or soon after the one-year warranty period. Scope of work to follow manufacturer's manual / recommendation specific for the equipment offered, which include: ▪ Supply, delivery and installation of preventive maintenance kits and/or consumables

NO.	ITEM DESCRIPTIONS AND SPECIFICATIONS
	▪ Software update (to obtain prior authorization from user and BME) ▪ Inspection ▪ cleaning ▪ alignment ▪ calibration ▪ any other related preventive maintenance works required
8	PRICE VALIDITY Price validity MUST NOT BE LESS THAN 9 months .

NO.	GENERAL SPECIFICATIONS*
A	Total Price: B\$
B	Delivery Period:
C	Model & Brand:
D	Country of Origin:
E	Where marketed:
F	Year of Manufacture:
G	Warranty:
H	Power Requirement:
I	Battery Back-up:
J	International Safety Standard:
K	Technical Support:
L	Equipment Whole Life Support:
M	Dimensions (WxHxD) cm:
N	User Manuals:
O	Service Manuals:
P	Spare-parts & Consumables Listing:
Q	Technical Training On-Site:
R	Site Requirements:

*To all participating companies, please fill in the table above along with your other documents during submission of tender.

Bahagian/Unit/Makmal:	Food Chemistry Laboratory
Bil. Rujukan Bahagian/Unit/Makmal:	FORD / 2026 / 023
Pegawai dirujuk:	Nama: Nadiah Haji Amidon
	E-mail: Nadiah.amidon@moh.gov.bn
	Tel. No.: 2382424 ext 7763

SECTION 3

TENDER FORM

TENDER REFERENCE NO.: KK/232/2026/DSS

INVITATION TO TENDER

TO SUPPLY, DELIVER, INSTALL, TEST AND COMMISSION ONE (1) UNIT MICROCHIP ELECTROPHORESIS SYSTEM FOR FOOD CHEMISTRY LABORATORY, DEPARTMENT OF SCIENTIFIC SERVICES, MINISTRY OF HEALTH

NAME OF ITEM					
NO.	ITEM DESCRIPTIONS AND SPECIFICATIONS	VENDOR'S OFFER			
		COMPLY (Please tick √) (Provide evidence for compliance(s))		ITEM DESCRIPTIONS AND SPECIFICATIONS	PRICE (B\$)
		YES	NO		
1	<u>GENERAL</u>				
1.1	Tenderer is to supply one (1) completely functional, brand new, computer-controlled system of Microchip Electrophoresis (later referred to as ' Instrument ') complete with required accessories needed to carry out DNA applications in food and non-food matrices.				
1.2	The Instrument system shall consist of, but not limited to the following major components, complete with all software, hardware and interface necessary to make a fully integrated system required for the detection of DNA in food and non-food matrices: 1. Microchip Electrophoresis System with complete accessories 2. Data Acquisition System with complete accessories 3. Reagents and consumables compatible with the system 4. Other mandatory accessories				

NO.	ITEM DESCRIPTIONS AND SPECIFICATIONS	VENDOR'S OFFER			
		COMPLY (Please tick ✓) (Provide evidence for compliance(s))		ITEM DESCRIPTIONS AND SPECIFICATIONS	PRICE (B\$)
		YES	NO		
1.3	The instrument and its accessories especially the Data Acquisition System has to be a bench-top model.				
1.4	The instrument offered must be capable of detecting DNA minimum 1 ng /µl or better in food matrices.				
1.6	The instrument must be able to operate in a laboratory conditions that range from 15 – 30 °C and a relative humidity of 25 – 80% non-condensing and noncorrosive.				
1.7	The year of the model offered must be launched from 2025 onwards.				
2	<u>TECHNICAL SPECIFICATIONS</u>				
2.1	<u>MICROCHIP ELECTROPHORESIS SYSTEM</u>				
2.1.1	The instrument able to perform electrophoresis within microchannels in a quartz-based microchip.				
2.1.2	The instrument has to be in a closed system to avoid contaminations.				
2.1.3	The instrument must be equipped with automation to carry out analysis such as feature of loading reagents and samples into the instrument.				
2.1.4	The instrument able to start the analysis with just simple touch of a start button to perform automatic analysis.				
2.1.5	The instrument has high throughput and can analysed minimum of 96 samples at one registered analysis.				
2.1.6	The instrument can be set to use minimum 3 microchip set in the instrument to achieve higher throughput samples.				
2.1.7	The instrument can generate images: ▪ In migration time				

NO.	ITEM DESCRIPTIONS AND SPECIFICATIONS	VENDOR'S OFFER			
		COMPLY (Please tick ✓) (Provide evidence for compliance(s))		ITEM DESCRIPTIONS AND SPECIFICATIONS	PRICE (B\$)
		YES	NO		
	▪ In size fragments. ▪ Resembling to conventional agarose gel electrophoresis.				
2.1.8	The microchip supplied can be reused instead of single use.				
2.1.9	When running the instrument, it has to be able to perform the following operations automatically: ▪ Initial check of the instrument before analysis – if error is detected, alert / alarm / notification is prompted. ▪ Loading of reagents and samples ▪ Electrophoretic separation and detection ▪ Post analysis check – microchip washed and sample probe washed ready for the next analysis.				
2.1.10	When running the analysis, the instrument is able to perform the detection with sample volume of 1 - 15µl				
2.1.11	The instrument supplied must be suitable for the application of DNA and RNA.				
2.2	<u>DATA ACQUISITION SYSTEM</u>				
2.2.1	The instrument must be inclusive of data acquisition system and its auxiliary equipment as well as allowing users for the recording and reviewing of the analysis data.				
2.2.2	The data acquisition system must consist of, but not limited to the following components: Desktop PC with complete accessories: a. Small Form Factor PC with specifications as recommended by manufacturer.				

NO.	ITEM DESCRIPTIONS AND SPECIFICATIONS	VENDOR'S OFFER			
		COMPLY (Please tick ✓) (Provide evidence for compliance(s))		ITEM DESCRIPTIONS AND SPECIFICATIONS	PRICE (B\$)
		YES	NO		
	b. Comes complete with accessories such as: ▪ Power adapter ▪ Wireless mouse ▪ Wireless keyboard ▪ at least 23-inch monitor (display resolution 1280 x 800 pixels or higher) ▪ External hard disk to back up data, minimum 1TB c. Printer to be supplied is preferable Epson Ecotank L3210 model. Other model supplied has to be discussed and agreed by end user.				
2.2.3	The data acquisition system shall have the latest Microsoft Office including Word, Excel and PowerPoint preinstalled.				
2.2.4	The instrument software designed to use with the instruments to control the system and capture data.				
2.2.5	The instrument software designed to assist in achieving requirements for audit trails, electronic signatures and access privileges.				
2.3	<u>REAGENTS AND CONSUMABLES</u>				
2.3.1	Tenderer shall supplied complete set of reagents and consumables to ensure the instrument is able to perform successfully.				
2.3.2	Such reagents and consumables needed to be supplied together with the instrument system are as follows but not limited to:				
2.3.3	8 pieces of quartz microchips. Microchips supplied must also be compatible to be used with existing lab instrument (Shimadzu Multina MCE-202)				
2.3.4	3 sets of intercalator dyes that is not carcinogenic.				

NO.	ITEM DESCRIPTIONS AND SPECIFICATIONS	VENDOR'S OFFER			
		COMPLY (Please tick ✓) (Provide evidence for compliance(s))		ITEM DESCRIPTIONS AND SPECIFICATIONS	PRICE (B\$)
		YES	NO		
	This dye has to be compatible with the existing lab instrument (Shimadzu Multina MCE-202) Preferable dye: ▪ SYBR™ Gold or ▪ GelStar Nucleic Acid Gel Stain				
2.3.5	3 sets of DNA Ladder for 500 bp fragments to be supplied and used as a reference standard to determine the size and approximate concentration of unknown DNA fragments during electrophoresis. DNA ladder for 500 bp fragments recommended by the instrument manufacturer and does not need user to create library for the ladder.				
2.3.6	3 sets of DNA Ladder for 1000 bp fragments to be supplied and used as a reference standard to determine the size and approximate concentration of unknown DNA fragments during electrophoresis. DNA Ladder for 1000 bp fragments recommended by the instrument manufacturer and does not need user to create library for the ladder.				
2.3.7	3 bottles of TE Buffer with following concentration and pH value: ▪ Concentration: 10 mM Tris-HC/ ▪ pH Value: pH 8.0				
2.3.8	3 bottles of Microchip cleaning solution for the usage of cleaning microchip.				
2.3.8	3 bottles of probe rinsing solution for the usage of rinsing probe.				
2.3.9	3 packs of DNA Reagents Kits with specifications: - Supplied together with DNA Markers - This reagents kit is compatible for the usage of existing laboratory instrument (Shimadzu Multina MCE-202)				

NO.	ITEM DESCRIPTIONS AND SPECIFICATIONS	VENDOR'S OFFER			
		COMPLY (Please tick ☒) (Provide evidence for compliance(s))		ITEM DESCRIPTIONS AND SPECIFICATIONS	PRICE (B\$)
		YES	NO		
	c. Analysis size range: 25 bp – 500 bp d. Sizing accuracy: ±5 bp for fragments between 25– 100 bp, and ±5% for fragments between 100–500 bp e. Size resolution: 5 bp separation capacity within 25 to 100 bp and ±5% for fragments between 100–500 bp f. Quantitation range: 0.5 to 50 ng/ul g. Detection sensitivity: 0.2 ng /ul				
2.3.10	3 packs of DNA Reagents kits with specifications: a. Supplied together with DNA Markers b. This reagents kit is to be compatible for the usage of existing laboratory instrument (Shimadzu Multina MCE-202) d. Analysis size range: 100 bp – 1000 bp e. Sizing accuracy: 15 % for 100 bp to 1000 bp f. Size resolution: ±5 % for fragments between 100– 500 bp, ±10 % for fragments between 500 – 1000 bp g. Quantitation range: 0.5 to 50 ng/ul h. Detection sensitivity: 0.2 ng /ul				
2.3.12	Micro Centrifuge Tubes, Vials and Adhesive Films: Tenderer has to supply tubes and vials for the usage of sample analysis and compatible to the instrument system. Tubes and vials supplies must be sterile, certified DNase and RNase free. If any of the items not mentioned below but needed to run analysis, the tenderer has to include the items to be supplied. Items are as follows (Item 2.3.13 until 2.3.18) :				

NO.	ITEM DESCRIPTIONS AND SPECIFICATIONS	VENDOR'S OFFER			
		COMPLY (Please tick ✓) (Provide evidence for compliance(s))		ITEM DESCRIPTIONS AND SPECIFICATIONS	PRICE (B\$)
		YES	NO		
2.3.13	100 pieces of 96-well PCR plates / Microplates				
2.3.14	1 box of individual PCR tubes and its cap				
2.3.15	300 pieces of 5.0 mL Screw Cap Tubes				
2.3.16	3 boxes of 1.5 mL Centrifuge Tubes and its cap				
2.3.17	3 boxes of 0.6 mL vials				
2.3.18	5 packs of Adhesive Foil Seals for Microplates.				
2.3.19	All consumable mentioned in Item 2.3.13 until 2.3.18 to be quoted has to be agreed with the end-user				
3	<u>OTHER MANDATORY ACCESSORIES</u>				
3.1	1 unit of Dessicator of the following specification: ▪ Vertical cabinet, minimum 50 L capacity ▪ Automatic dehumidification and dessicant regeneration cycle operates continuously ▪ Co-polyester construction blocks 99% UV light ▪ Resistant to staining, crazing and chemical attack ▪ Minimum 3 shelves, removable and perforated ▪ Large door with digital hygrometer, includes seal, tab latches and security loops				
3.2	1 unit of Vortex Mixer of the following specification or better:				

NO.	ITEM DESCRIPTIONS AND SPECIFICATIONS	VENDOR'S OFFER			
		COMPLY (Please tick ✓) (Provide evidence for compliance(s))		ITEM DESCRIPTIONS AND SPECIFICATIONS	PRICE (B\$)
		YES	NO		
	▪ Able to achieve uniform homogenization when mixing dye, buffer, DNA samples, ladder without introducing shearing forces, content spillage and forming aggressive micro bubbles ▪ Variable speed range from 200 rpm to 3000 rpm ▪ Has digital timer that can time in seconds and minutes ▪ Operation modes: Dual mode and interchangeable between pulse mode and continuous mode ▪ Head adapter: ✓ Can vortex individual tube of volume capacity ✓ 0.6 mL – 2.0 mL tubes o Can vortex 96-well PCR plate / microplate o Adapter is easily interchangeable between individual tube adapter and microplate adapter ▪ Physical stability: Heavy and weighted casing with vibration absorber to prevent the vortex mixer from moving around the lab bench when operational.				
3.3	Pipette and Pipette Tips:				
3.3.1	▪ unit of pipettor ▪ Volume: 100 ul – 1000 ul ▪ When supplied, pipette must be: ✓ Calibrated by ISO/IEC 17025 accredited calibration laboratory with a calibration certificate supplied ✓ A copy of laboratory's scope of accreditation and current accreditation schedule to be provided ✓ The laboratory's Calibration and ✓ Measurement Capability (CMC) shall be stated and sufficient to ensure compliance with ISO 8655 maximum permissible errors for the specified pipette volume range				

NO.	ITEM DESCRIPTIONS AND SPECIFICATIONS	VENDOR'S OFFER			
		COMPLY (Please tick ✓) (Provide evidence for compliance(s))		ITEM DESCRIPTIONS AND SPECIFICATIONS	PRICE (B\$)
		YES	NO		
	▪ 20 containers of filtered pipette tips that is compatible with the pipettor ▪ Pipette tips supplied shall be sterile and certified DNase and RNase free				
3.3.2	▪ 2 units of pipettor ▪ Volume: 1 ul – 10 ul ▪ When supplied, pipette must be: o Calibrated by ISO/IEC 17025 accredited calibration laboratory with a calibration certificate supplied ✓ A copy of laboratory's scope of accreditation and current accreditation schedule to be provided ✓ The laboratory's Calibration and ✓ Measurement Capability (CMC) shall be stated and sufficient to ensure compliance with ISO 8655 maximum permissible errors for the specified pipette volume range ▪ 20 containers of filtered pipette tips that is compatible with the pipettor ▪ Pipette tips supplied shall be sterile and certified ▪ DNase and RNase free				
3.3.3	▪ unit of pipettor ▪ Volume: 0.1 ul – 2ul When supplied, pipette must be: ✓ Calibrated by ISO/IEC 17025 accredited calibration laboratory with a calibration certificate supplied ✓ A copy of laboratory's scope of accreditation and current accreditation schedule to be provided ✓ The laboratory's Calibration and ✓ Measurement Capability (CMC) shall be stated and sufficient to ensure compliance with ISO 8655 maximum permissible errors for the specified pipette volume range ▪ 20 containers of filtered pipette tips that is compatible with the pipettor				

NO.	ITEM DESCRIPTIONS AND SPECIFICATIONS	VENDOR'S OFFER			
		COMPLY (Please tick ✓) (Provide evidence for compliance(s))		ITEM DESCRIPTIONS AND SPECIFICATIONS	PRICE (B\$)
		YES	NO		
	Pipette tips supplied shall be sterile and certified DNase and RNase free				
3.3.4	1 unit of pipettor - Volume: 10 ul – 100 ul - When supplied, pipette must be: ✓ Calibrated by ISO/IEC 17025 accredited calibration laboratory with a calibration certificate supplied ✓ A copy of laboratory's scope of accreditation and current accreditation schedule to be provided ✓ The laboratory's Calibration and ✓ Measurement Capability (CMC) shall be stated and sufficient to ensure compliance with ISO 8655 maximum permissible errors for the specified pipette volume range 20 containers of filtered pipette tips that is compatible with the pipettor - Pipette tips supplied shall be sterile and certified DNase and RNase free				
4	<u>POWER SUPPLY</u> All electrical and electric components in the system must be able to utilise main power supply of 220 – 240 V AC, 50 – 60 Hz. Otherwise, vendor to include additional items or work required to ensure successful operation.				
5	<u>SITE PREPARATION</u>				
5.1	It is <u>MANDATORY</u> for the tenderer to do site visit prior to tender submission to discuss site requirements. Non-attendance will be considered as non-compliance. Proof of attendance is needed to be attached together when submitting the tender.				
5.2	Tenderer shall ensure that the site preparation for the placement of the system taking into the consideration on the safety of the end user during the operation of the instrument.				

NO.	ITEM DESCRIPTIONS AND SPECIFICATIONS	VENDOR'S OFFER			
		COMPLY (Please tick ✓) (Provide evidence for compliance(s))		ITEM DESCRIPTIONS AND SPECIFICATIONS	PRICE (B\$)
		YES	NO		
5.3	The site preparation needed for the successful installation and operation of the DNA Detection System should include, but not limited to: a. Electrical systems b. Waste drainage system c. Workbench (modification or fabrication for space and weight compatibility) Any other deemed necessary to ensure successful and safe installation and operation of the system should be included.				
5.4	The site preparation details should be listed out in the quotation / document submitted				
6	<u>TRAINING</u> Training shall be provided, at no additional cost, as follows:				
6.1	On-site training for ALL staff members expected to handle the instrument. Please ensure that adequate time is allocated such that training will take place in small groups to minimize staff shortage in the laboratory.				
6.2	Certificate of competence is to be issued to all trainees after completion of training.				
6.3	Tenderer shall provide training notes (both in soft copy and hard copy) to all staff members who joined the training.				
6.4	The successful tenderer needs to ensure the key users are updated on the current or relevant information related to the system used.				
	Tenderer should provide <u>ONE</u> (1) off-site benchwork training or any capacity building program at an accredited laboratory / one Asia country as chosen by the end user for <u>THREE</u> (3) key users for not less than five (5) days . The training / capacity building program has to be related to molecular biology application in food.				

NO.	ITEM DESCRIPTIONS AND SPECIFICATIONS	VENDOR'S OFFER			
		COMPLY (Please tick √) (Provide evidence for compliance(s))		ITEM DESCRIPTIONS AND SPECIFICATIONS	PRICE (B\$)
		YES	NO		
	All expenses for attending the mentioned program above shall be borne by the vendor; including full registration fee, insurance, air ticket, daily allowance, accommodation, transport to and from the airport and place of training.				
7	<u>WARRANTY</u>				
7.1	A minimum of one (1) year warranty for manufacturer's defect on the hardware, software and all cost of repairs and/or replacements should be included				
7.2	After-sales services must be provided for the product after one (1) year				
7.3	One-off preventive maintenance to be carried out just before or soon after the one-year warranty period. Scope of work to follow manufacturer's manual / recommendation specific for the equipment offered, which include: ▪ Supply, delivery and installation of preventive maintenance kits and/or consumables ▪ Software update (to obtain prior authorization from user and BME) ▪ Inspection ▪ cleaning ▪ alignment ▪ calibration ▪ any other related preventive maintenance works required				
8	<u>PRICE VALIDITY</u> Price validity MUST NOT BE LESS THAN 9 months .				
TOTAL PRICE (B\$)					

NO.	GENERAL SPECIFICATIONS*	VENDOR'S OFFER
A	Total Price: B\$	
B	Delivery Period:	
C	Model & Brand:	
D	Country of Origin:	
E	Where marketed:	
F	Year of Manufacture:	
G	Warranty:	
H	Power Requirement:	
I	Battery Back-up:	
J	International Safety Standard:	
K	Technical Support:	
L	Equipment Whole Life Support:	
M	Dimensions (WxHxD) cm:	
N	User Manuals:	
O	Service Manuals:	
P	Spare-parts & Consumables Listing:	
Q	Technical Training On-Site:	
R	Site Requirements:	

*To all participating companies, please fill in the table above along with your other documents during submission of tender.