



REQUEST FOR QUOTATION

No: RFQ-HKSTC 202211-01

For

LIQUID CHROMATOGRAPHY WITH TANDEM MASS SPECTROMETRY (LC-MS-MS)

NAME OF COMPANY: The Hong Kong Standards and Testing Centre Limited (STC Hong Kong, “Buyer”)

ADDRESS: 10 Dai Wang Street, Tai Po Industrial Estate, Tai Po, NT, HK

Dear Sirs/ Madams,

Established in 1963, STC is an independent, not-for-profit testing, inspection and certification organization headquartered in Hong Kong, offering one-stop professional conformity assessment services for customers around the world to get access to the global markets.

As an organization with global network, not only has STC set up testing facilities and customer service offices in China’s major cities such as Dongguan, Shanghai, Changzhou, and Guangxi, but also in countries such as Vietnam, Japan, the USA and Germany. Our world-class, internationally accredited testing facilities and service meet the needs from a wide range of industries.

You are invited to submit a quotation for LIQUID CHROMATOGRAPHY WITH TANDEM MASS SPECTROMETRY (LC-MS-MS) according to the Technical Specifications.

When preparing your quotation, please be guided by the INSTRUCTION TO SUPPLIER attached hereto. Quotations shall be submitted in English and shall be marked with the note “**RFQ-HKSTC 202211-01 for LIQUID CHROMATOGRAPHY WITH TANDEM MASS SPECTROMETRY (LC-MS-MS)**” on its cover.



Please submit your Quotation to the below email address on or before 15 December 2022:

karenchung@stc.group

This Request for Quotation does NOT constitute an offer and the Buyer is not obliged to accept the offer from any quotation received. The Buyer further reserves the right to enter into a contract with any supplier at its own discretion. The supplier shall bear all costs in relation to this Request for Quotation and has NO right to seek compensation from the Buyer.

Submission of your quotation shall constitute an acceptance to the above terms.

Thank you and we look forward to receiving your quotation.

Best regards,

The Hong Kong Standards and Testing Centre Limited

INSTRUCTION TO SUPPLIER

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| Customs clearance, if needed, shall be done by: | <input checked="" type="checkbox"/> Supplier |
| Address of Delivery Location | The Hong Kong Standards and Testing Centre Limited |
| Delivery Schedule | <input checked="" type="checkbox"/> Required |
| Preferred Currency of Quotation ¹ | <input checked="" type="checkbox"/> United States Dollars, or <input checked="" type="checkbox"/> Hong Kong Dollars |
| After-sales services required | <input checked="" type="checkbox"/> Warranty on Parts and Labor for a minimum period of <u>2</u> years <input checked="" type="checkbox"/> Provision of Service Unit when pulled out for maintenance/repair <input checked="" type="checkbox"/> Installation and adjustment of the goods <input checked="" type="checkbox"/> Training on Operation, Maintenance and Application <input checked="" type="checkbox"/> Technical, Method development/ Method transfer Support <input checked="" type="checkbox"/> Maximum 24 hours for urgent repair actions |
| Deadline for the Submission of Quotation | 15 December 2022, 17:00 (Beijing time) |

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| All documentations, including catalogs, instructions and operating manuals, shall be in this language | <input checked="" type="checkbox"/> English |
| Documents to be submitted | <input checked="" type="checkbox"/> Company profile (short info up to 1 page); <input checked="" type="checkbox"/> Detailed technical description of the offered goods: brochures, technical data sheet and specifications; <input checked="" type="checkbox"/> Certificate of origin (C / O) and a quality certificate (C / Q); <input checked="" type="checkbox"/> Statement or certificate of origin for the offered equipment; <input checked="" type="checkbox"/> Name and address of authorized service in Hong Kong |
| Period of Validity of Quotes starting the Submission Deadline Date | <input checked="" type="checkbox"/> 12 months |
| Payment Term | <input checked="" type="checkbox"/> An advance payment is allowed up to a maximum of 30% of contract value. |
| Evaluation Criteria | <input checked="" type="checkbox"/> Technical responsiveness/Full compliance to requirements and lowest price. <input checked="" type="checkbox"/> Minimum 3 years of experience in the field; <input checked="" type="checkbox"/> Availability of certificates of quality and origin for the offered equipment; <input checked="" type="checkbox"/> Maximum delivery period not to exceed 6 months upon signature of contract; <input checked="" type="checkbox"/> Availability of authorized service in Hong Kong and compliance with the after-sales services requirements. |
| The Buyer will award to: | <input checked="" type="checkbox"/> One and only one supplier |
| Type of Contract to be Signed | <input checked="" type="checkbox"/> Contract for Goods and/or Services |
| Conditions for Release of Payment | <input checked="" type="checkbox"/> Complete delivery and installation <input checked="" type="checkbox"/> Passing all Testing <input checked="" type="checkbox"/> Completion of Training on Operation and Maintenance |
| Annexes to this RFQ | <input checked="" type="checkbox"/> Technical Specifications of the Goods Required (Annex) |
| Contact Person for Inquiries | Karen Chung Email: karenchung@stc.group Contact number: +852 2666 1806 |

ANNEX: TECHNICAL SPECIFICATIONS

| Name of equipment/ Description | |
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| LIQUID CHROMATOGRAPHY WITH TANDEM MASS SPECTROMETRY (LC-MS-MS) | |
| Model: | |
| Brand: | |
| LC-MS/MS | A compact LC-MS/MS system for qualitative and quantitative estimation of food contaminants (Pesticides, Mycotoxins, antibiotics etc.) residues analysis with user friendly software to meet the global food regulations like China/ EU/ USFDA/ Japan /Hong Kong, etc.. |
| Tandem Mass Spectrometer (MS/MS) | <p>The MS/MS shall be a bench-top model incorporating triple quadrupole technology or equivalent. The MS/MS shall be equipped with a syringe pump and a 6-port, 2-position switching valve (or equivalent device or design) for direct injection and infusion function and capable of performing the following scan functions:</p> <ul style="list-style-type: none"> (i) full ion scan; (ii) selected ion monitoring (SIM) or equivalent; (iii) multiple reaction monitoring (MRM) or selected reaction monitoring (SRM) or equivalent; (iv) neutral loss scan; (v) product ion scan; and (vi) precursor ion scan. <p>Upgradeable to linear ion trap technology or equivalent.</p> |
| Ionization source | <p>The MS shall be equipped with suitable ionization source(s) and able to operate in electrospray ionization (ESI) mode and atmospheric pressure chemical ionization (APCI) mode. It shall be capable of switching between positive and negative ion modes within a run.</p> <p>Venting the instrument shall not be required when removing the ionization interface for maintenance.</p> |
| Ionization voltage for operation in ESI mode | User selectable from -4.5 kV to +5.5 kV. |

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| Flow rate compatibility in ESI mode | Cover a range at least from 5 to 3,000 $\mu\text{L}/\text{min}$, without flow splitting. |
| Temperature for solvent desolvation | User selectable at 750 $^{\circ}\text{C}$ or higher. |
| The sprayer position of the probes | User adjustable by sideways re-positioning (i.e. “left-to-right”), and by adjusting distance between the sprayer and MS entrance (i.e. “up-to-down” for vertically installed sprayer or “front-to-back” for diagonally installed sprayer). |
| Polarity switching | 5 milliseconds or less shall be achievable for switching between positive mode and negative mode within a sample run. |
| Mass Range | At least from 50 to 1,250 Dalton (Da) or wider. |
| Scanning speed | At least 12,000 Da/s. |
| Dynamic range | At least 6 order of magnitude. |
| MRM acquisition rate | At least 500 MRM/sec. |
| Sensitivity Specifications | Sensitivity for the positive polarity of MS/MS (ESI mode): A direct on column injection of 1 pg of reserpine shall produce a signal peak with minimum signal-to-noise ratio of at least 500,000:1, when monitoring the transition of m/z 609 to m/z 195 under the MRM mode. |
| | Sensitivity for the negative polarity of MS/MS (ESI mode): A direct on column injection of 1 pg of chloramphenicol shall produce a signal peak with minimum signal-to-noise ratio of at least 500,000:1, when monitoring the transition of m/z 321 to m/z 152 under the MRM mode. |
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| UHPLC | An UHPLC shall consist of, but not limited to, the following items or equivalent components: (i) One (1) online degasser; (ii) One (1) solvent delivery unit (SDU); (iii) One (1) thermostatted autosampler; and (iv) One (1) thermostatted column compartment (TCC). |
| Online degasser | The online degasser shall be a degassing device capable of eliminating dissolved gas during isocratic elution and gradient elution. |

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| | At least two (2) channels shall be provided. |
| Solvent delivery unit (SDU) | <p>The SDU shall be capable of automatically blending at least two (2) solvents for isocratic and gradient elution.</p> <p>Operating flow rate shall be selectable at least in the range of 0.01 to 5 milliliters per minute.</p> <p>The SDU shall be capable of operating at a pressure at least 18,000 psi.</p> |
| Thermostatted autosampler | <p>The autosampler shall be able to accommodate at least 96 vials of no less than 1.5-milliliter vial capacity.</p> <p>The sample compartment of the autosampler shall be equipped with a thermostatic control function and shall be adjustable at least covering the range from 4°C to 40°C, with increments of 1°C or smaller.</p> <p>The injection precision (based on peak area) shall be less than or equal to a relative standard deviation (RSD) of 0.25%.</p> <p>Carryover shall be smaller than or equal to 0.002%.</p> |
| Thermostatted column compartment (TCC) | <p>The TCC shall be able to accommodate at least two (2) liquid chromatographic columns, with a length of at least 250 mm each.</p> <p>Column switching device controllable by the operating software shall be available for switching between columns.</p> <p>Operating temperature range of the thermostatted column compartment shall be adjustable from 10 °C below ambient to 80 °C or wider range.</p> |
| Gas Generator | Gas generator for supply of gas(es), e.g. nitrogen, necessary for supporting continuous and uninterrupted operation of the MS/MS shall be provided. |
| After sales service | The Warranty Period of the Goods shall be twenty-four (24) months from the Acceptance Date of the Goods. |

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| | <p>Should have a good after sales service/ technical support capable of reaching at short notice the places where LC-MS/MS is proposed to be installed.</p> <p>Under warranty period, visits and unlimited breakdown call by service/ application support, engineer should attend immediately without fail for LC-MS/MS including Nitrogen Generator.</p> |
| <p>Training of personnel</p> | <p>Basic training for a period of not less than one weeks after installation of equipment to technical personnel should be provided, free of cost.</p> <p>Trouble shooting training as and when required.</p> <p>Method development and method transfer support.</p> |