

**German Financial Cooperation with the „Western Balkan Six Chamber Investment Forum” (WB6-CIF)
Regional Challenge Fund Project**

**CORRIGENDUM no. 2
TO THE TENDER DOSSIER**

Tender Dossier Title: Supply Tender „Procurement of High-Performance Liquid Chromatograph (HPLC) coupled with Triple Quadrupole Mass Spectrometer (MS-MS) with Electrospray ionization (ESI) and Atmospheric pressure chemical ionization (APCI) source and Nitrogen generator”

Europe (non-EU), Serbia (SER)

Tender Dossier Reference Number: 509186

1. Reason for change

Modification of requests provided in the technical specifications.

2. Text to be corrected in the original tender dossier

Section VII. Schedule of Requirements, point 3. Technical Specifications

Instead of:

| Technical Specifications | | Reference number: 509186, One lot only | | |
|--------------------------|--|--|-------|--|
| Item No. | Item Name & Purchaser's Specifications | Quantity | Unit | Statement of Compliance (Bidder's Offered Item & Specification) |
| 1. | LIQUID CHROMATOGRAPH LC-MS/MS | 1 | piece | <i>[Manufacturer/Brand]</i> <i>[Model]</i> <i>[Offered specifications]</i> |

| Technical Specifications | | Reference number: 509186, One lot only | | |
|--------------------------|--|--|-------|--|
| Item No. | Item Name & Purchaser's Specifications | Quantity | Unit | Statement of Compliance (Bidder's Offered Item & Specification) |
| | Quaternary pump <ul style="list-style-type: none"> • Flow: 0.001–10 mL/min, in 1 µL/min increments or better • Pressure: minimum up to 700 bar with the flow rate up to 5 mL/min or better • Serial dual-piston pump • Quaternary mixing up to 4 solvents at low pressure or better • Compressibility Compensation: Fully automated, independent of mobile phase composition • Leak detection included • Vacuum degasser: included in the configuration, with 4 channels or better • Flow precision: ≤0.05% RSD or better • Flow accuracy: ± 0,1% or better • Composition precision: 0.15% RSD or better • Proportioning Accuracy: ±0.5% of full-scale or better | 1 | piece | <i>[Manufacturer/Brand]</i> <i>[Model]</i> <i>[Offered specifications]</i> |
| | Autosampler <ul style="list-style-type: none"> • Injection volume range: from 0.01 to 100 µl in steps of 0.01 µl increments with 100 µL • Precision of injection: better than 0,25% RSD • Pressure range: 700 bar or better • Sample capacity: more than 200 vials of 1,5/2 ml volume • Carry over: 0.002% or better • Injection cycle time: 8 s or better | 1 | piece | <i>[Manufacturer/Brand]</i> <i>[Model]</i> <i>[Offered specifications]</i> |
| | Thermostated column compartment <ul style="list-style-type: none"> • Work principle: Still air and forced air • Temperature range: from +5 °C to 85 °C or better) | 1 | piece | <i>[Manufacturer/Brand]</i> <i>[Model]</i> <i>[Offered specifications]</i> |

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| | <ul style="list-style-type: none"> • Temperature stability: ± 0.05 °C or better • Temperature accuracy: ± 0.5 °C or better • Temperature precision: 0.1 °C or better • Heating rate: from ambient or 20 °C temperature to 50 °C for 15 minutes or better • Column capacity: 2 columns, up to 300 mm length | | | |
| | <p>MS/MS detector</p> <ul style="list-style-type: none"> • Type of analyzer: triple quadrupole • Mass range: m/z 2 – 3000 (or wider) • Detector type: discrete-dynode detector • Mass resolution: 0.4 Da or better • Mass stability: ≤ 0.1 Da in 24h • Dynamic range: 10^6 or better • Scan speed: 15000 Da / s or better • Polarity switching (electronics): ≤ 5 ms • Vacuum system: turbomolecular pump backed by one mechanical pump • Maintenance and easy cleaning of ion transfer tube without breaking vacuum • Electrospray ionization (ESI) source with thermal gradient • MRM sensitivity S/N ESI positive measured 1 pg of reserpine injected on column, quantifying on the transition m/z 609.3 to 195.1: S/N $>500000:1$ • MRM sensitivity S/N ESI negative measured 1pg of chloramphenicol injected on column, quantifying on the transition m/z 321.0 to 152.0: S/N $>500000:1$ • Maximum MRM acquisition rate: 600 MRMs/sec | 1 | piece | <p><i>[Manufacturer/Brand]</i></p> <p><i>[Model]</i></p> <p><i>[Offered specifications]</i></p> |

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| | <ul style="list-style-type: none"> Scan mode: product ion scan, neutral loss scan, precursor ion scan, SIM, MRM | | | |
| | Nitrogen generator <ul style="list-style-type: none"> Nitrogen generator with air compressor capacity of 35 l/min, suitable quality for LCMS application | 1 | piece | <i>[Manufacturer/Brand]</i> <i>[Model]</i> <i>[Offered specifications]</i> |
| | Computer <ul style="list-style-type: none"> Brand name PC and monitor, Windows 10 (64 bit) appropriate for requested system | 1 | piece | <i>[Manufacturer/Brand]</i> <i>[Model]</i> <i>[Offered specifications]</i> |
| | Software <ul style="list-style-type: none"> Software for data collection, processing, and reporting of results | 1 | piece | <i>[Manufacturer/Brand]</i> <i>[Model]</i> <i>[Offered specifications]</i> |

Read:

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| | Quaternary pump <ul style="list-style-type: none"> • Flow: 0.001–5 mL/min, in 1 µL/min increments or better • Pressure: minimum up to 700 bar with the flow rate up to 5 mL/min or better • Serial dual-piston pump • Quaternary mixing up to 4 solvents at low pressure or better • Compressibility Compensation: Fully automated, independent of mobile phase composition • Leak detection included • Vacuum degasser: included in the configuration, with 4 channels or better • Flow precision: ≤0.07% RSD or less • Flow accuracy: 1% or less • Composition precision: 0.15% RSD or better • Proportioning Accuracy: ±0.5% of full-scale or better | 1 | piece | <i>[Manufacturer/Brand]</i> <i>[Model]</i> <i>[Offered specifications]</i> |
| | Autosampler <ul style="list-style-type: none"> • Injection volume range minimum from 0.1 ul – 100 ul with 0.1 ul increments • Precision of injection: better than 0,25% RSD • Pressure range: 700 bar or better • Sample capacity: more than 200 vials of 1,5/2 ml volume • Carry over: 0.002% or better • Injection cycle time: 10 s or better | 1 | piece | <i>[Manufacturer/Brand]</i> <i>[Model]</i> <i>[Offered specifications]</i> |
| | Thermostated column compartment <ul style="list-style-type: none"> • Work principle: Still air • Temperature range: minimum from +15 to 85°C) • Temperature stability: ± 0.05 °C or better | 1 | piece | <i>[Manufacturer/Brand]</i> <i>[Model]</i> <i>[Offered specifications]</i> |

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| Item No. | Item Name & Purchaser's Specifications | Quantity | Unit | Statement of Compliance (Bidder's Offered Item & Specification) |
| | <ul style="list-style-type: none"> • Temperature accuracy: ± 0.5 °C or better • Temperature precision: 0.1 °C or better • Column capacity: 2 columns, up to 300 mm length | | | |
| | <p>MS/MS detector</p> <ul style="list-style-type: none"> • Type of analyzer: triple quadrupole • Mass range: minimum m/z 5-3000 • Detector type: discrete-dynode detector • Mass resolution: 0.5 Da or less • Mass stability: ≤ 0.1 Da in 24h • Dynamic range: 10^6 or better • Scan speed: 15000 Da / s or better • Polarity switching (electronics): ≤ 25 ms • Vacuum system: turbomolecular pump backed by one mechanical pump • Maintenance and easy cleaning of ion transfer tube without breaking vacuum • Electrospray ionization (ESI) source with thermal gradient • MRM sensitivity S/N ESI positive measured 1 pg of reserpine injected on column, quantifying on the transition m/z 609.3 to 195.1: S/N $> 500000:1$ • MRM sensitivity S/N ESI negative measured 1pg of chloramphenicol injected on column, quantifying on the transition m/z 321.0 to 152.0: S/N $> 500000:1$ • MRM acquisition rate: minimum 500 MRMs/sec or better • Scan mode: product ion scan, neutral loss scan, precursor ion scan, SIM, MRM | 1 | piece | <p><i>[Manufacturer/Brand]</i> <i>[Model]</i> <i>[Offered specifications]</i></p> |
| | Nitrogen generator | 1 | piece | <p><i>[Manufacturer/Brand]</i> <i>[Model]</i> <i>[Offered specifications]</i></p> |

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| Item No. | Item Name & Purchaser's Specifications | Quantity | Unit | Statement of Compliance (Bidder's Offered Item & Specification) |
| | <ul style="list-style-type: none"> Nitrogen generator with air compressor capacity of 35 l/min, suitable quality for LCMS application | | | |
| | Computer <ul style="list-style-type: none"> Brand name PC and monitor, Windows 10 (64 bit) appropriate for requested system | 1 | piece | <i>[Manufacturer/Brand]</i> <i>[Model]</i> <i>[Offered specifications]</i> |
| | Software <ul style="list-style-type: none"> Software for data collection, processing, and reporting of results | 1 | piece | <i>[Manufacturer/Brand]</i> <i>[Model]</i> <i>[Offered specifications]</i> |

All other terms and conditions of the tender dossier remain unchanged. The above corrections to the tender dossier are integral part of the tender dossier.