Guru Angad Dev
Veterinary and Animal Sciences University, Ludhiana

Corrigendum No. PC/2019-20/ 1904 **Dated** 29-01-2020

CORRIGENDUM

Revised Technical Specification

The technical specifications for the purchase of **Amino Acid Analyzer (Ultra Performance Liquid Chromatography System)** e-tender 2020_DAH_43602_1 (Reference No PC/2019-20/1872 dated 22-01-2020) Published on www.eproc.punjab.gov.in under organisation "Department of Animal Husbandry" and division 'Purchase Cell' is hereby **Revised** and given below. The interested firms/bidders are advised to submit bid(s) keeping in view the revised technical specifications. The other terms and conditions shall remain unchanged.

Note:- Any further corrigendum to the tender notice shall be published on the above website only.

Comptroller

Revised Specifications

Amino Acid Analyzer UPLC Specification

Fully PC controlled UHPLC/UPLC system with Integrated Quaternary pump having in built 5 channel/6 channel vacuum degasser, Autosampler, UV detector, Column Oven & Chromatography data controlling software, pre column derivatization of amino acids with pre optimized method and parameters

UPLC Pump Module	**Quaternary Gradient system** • Low-pressure quaternary gradient mixing • Solvent selection: Up to Four solvents • 11 or more gradient curve available • Maximum Operating Pressure: 15000 psi or more • Flow precision 0.075% RSD • Flow accuracy ± 1.0% • Total System dwell volume < 400 µL inclusive of mixer volume • PH range 1- 12 • System must have integrated 5 channel/6 channel vacuum degassing facility • Flow rate range: 0.010 to 2.000 ml/min or better with increment of 0.001 mL/min
Autosampler	• Sample Capacity: 96 vials or more of 2 ml capacity • Standard injection volume Range from 0.1 to 10 µL • Injection Precision 0.3% RSD or better • Flow through needle Design • Sample carry over: ≤0.002 % for caffeine or better • Temperature control 4 °C to 40 °C • Minimum sample required: 5 µl residual • Advanced capability: Auto dilution and auto addition
UV Detector	• Wavelength range 190 – 700 nm or better • Wavelength accuracy ± 1 nm • Linearity range ≤ 5% at 2.5 AU • Baseline noise < 6 x 10^{-6} AU at 230 nm • Drift < 5 x10^{-4}/AU/Hr/°C at 230 nm • Maximum Data acquisition 80 Hz • Standard 10 mm path length ≤ 1 µL flow cell or better • Low Dispersion Volume will be preferred
Column Oven	• Operating temperature range Ambient to 90°C • Temperature accuracy 0.5°C over entire range • Temperature stability 0.5°C or better • Solvent conditioning: Active pre heating as standard • Column management device/Column Tracking to track and archive column usage history

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(Indentor)

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Deptt. of Animal Nutrition

28/11/2020
Dr. J.S. Lamba
Sr. Nutritionist
Deptt. of Animal Nutrition
(Nominee of Director of Research)

29/11/2020
Sh. Rajinder Kumar
Superintendent
Dean, COVSc
Nominee of Comptroller

28/01/2020
Sh. Parvesh Kumar
Store Keeper
Deptt. of Animal Nutrition

28/01/2020
Head
Deptt. of Animal Nutrition
GADVASU, Ludhiana.

Software	• Suitable Licensed Single software to control all modules of UPLC System. • Customizable data reports, online help and answer wizards. • Windows 10 environment • Interactive control and display of solvent delivery • Wizards to simplify and automate common system functions • Methods - instrument, processing and reporting parameters in one place • Embedded Oracle data base • Should be able to perform custom calculations
Amino Acid Analysis Kit	• Pre-Column derivatization Amino Acid Analysis Kit for aprox.200 samples Include standards 18 amino acids, reagents, derivatizing reagents, tubing's, column and solvents etc.
Columns	• C18 columns (2.1 x 150 mm x 1.7 micron):- 1 Nos • C18 columns (2.1 x 100 mm x 1.7 micron):- 1 Nos
UPS	• Online 3 KVA UPS with 30 mins back up facility
Data station (Computer& Printer)	• Latest configuration available at the time of supply of the system. • Printer: Laser jet B&W (Latest)
Warranty	• 2 Year for the entire system. • The committee may ask to technically qualified vender/venders to demonstrate analysis of amino acids for its final verification.

It is certified that the above specifications of Amino Acid Analyzer UPLC System are general specifications and do not favor any specific model/make/company/firm etc.

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