# *ANNEX II + III:* TECHNICAL SPECIFICATIONS + TECHNICAL OFFER

**Contract title: Supply of laboratory equipment for the purposes and functioning of scientific laboratories of the Blue Growth Research centre at Trakya University in Lots**

**Lot 3 Supply of Gel Permission Chromatography**

**p 1 /…**

**Publication reference:** **CB005.3.12.001 – PP-Supply 7**

**Columns 1-2 should be completed by the contracting authority**

**Columns 3-4 should be completed by the tenderer**

**Column 5 is reserved for the evaluation committee**

Annex III - the contractor's technical offer

The tenderers are requested to complete the template on the next pages:

* Column 2 is completed by the contracting authority shows the required specifications (not to be modified by the tenderer),
* Column 3 is to be filled in by the tenderer and must detail what is offered (for example the words ‘compliant’ or ‘yes’ are not sufficient)
* Column 4 allows the tenderer to make comments on its proposed supply and to make eventual references to the documentation

The eventual documentation supplied should clearly indicate (highlight, mark) the models offered and the options included, if any, so that the evaluators can see the exact configuration. Offers that do not permit to identify precisely the models and the specifications may be rejected by the evaluation committee.

The offer must be clear enough to allow the evaluators to make an easy comparison between the requested specifications and the offeredspecifications.

| **1.**  **Item number** | **2.**  **Specifications required** | **3.**  **Specifications offered** | **4.**  **Notes, remarks,  ref to documentation** | **5.**  **Evaluation committee’s notes** |
| --- | --- | --- | --- | --- |
| **1** | Gel Permission Chromatography (GPC) – 1 pcs.  1- GPC system must consist of a High Pressure Pump, Auto sampler , Column Compartment, Refractive Index Detector, Light Scattering Detector and Viscometry detector and Computer Data system.  2- The pump system must isocratic or quarternary.  3- Flow must be adjustable between at least 0.01 – 10 ml/min with min. 0.001ml/min steps.  4- Operating pressure range must be at least 5000 psi.  5- The pump must have at least one channels .  6- Pump must have an built in integrated degasser .  7- Autosampler Injection range must be at least between 0.1 – 100 uL.  8- Autosampler Operating pressure range must be at least 5000 psi.  9- Sample capacity for min. 2ml vials must be at least 130.  10- Loop must be washed online with mobile phase continuously.  11- Column Compartment must be able to perform Peltier heating and cooling  12- Temperature range must be between 20 °C and 65 °C.  13- Column capacity should be at least 4 columns of 30 cm length.  14- Refractive Index Detector ( RID ) Flow cell should be between 5 ul-20 uL.  15- Viscometer detector Sensitivity (nsp) must be at least 1 x 10-5 Pa. S or differential pressure baseline noise should be minimum 0,3 Pa.  16- Light scattering detector ( LS) must be able to work at least 2 angles.  17-LS detector Rayleigh scattering angles should be 7 ° or 15 °and 90°.  18- LS detector Flow cell volume should be between 10-20 ul.  19- LS detector laser source should work at 640 or 660nm wavelength.  20- System must have special GPC data analysis software to perform GPC column calibration, universal calibration , Rh and Rg values, report Molecular weight distributions and absolute molecular weight of the polymers.  21- System must have at least 6 GPC columns 2 guard columns , 1 set of Polystyrene standards , 1000 vials.  22- System computer should have at least intel i7 10th gen or equivalent 500 GB SSD, 16 GB Ram , Windows 10 or equivalent operating system.  23. The device should be guaranteed for at least 2 year against any manufacturing and assembly defects. Spare parts and service must be guaranteed for 10 years after the end of the warranty period. |  |  |  |
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