

## OPEN TENDER

### Procurement of the Flow Cytometer «Attune NxT Flow Cytometer, Laser Blue», including delivery to the consignee and its following installation

#### TECHNICAL SPECIFICATION

**Customer:** International Science and Technology Center (ISTC)

**Project:** P53

**Objective:** Procurement of the equipment within the frames of P53 Project

**Technical characteristics:**

No.	Name:	Requirements:	Specification:
1.	Flow cytometer	The analyzer is portable, easily transported, without additional settings during transportation	1 pc.
	Manufacturer:	Invitrogen	
	Model:	Attune NxT Flow Cytometer, Laser Blue	
	Catalogue no.	A24864	
1.1.	<b>Specifications:</b>		
1.1.1.	Focusing method	Hydrodynamic and acoustic	Both methods, available
1.1.2.	Laser beam shape	Flat Top (10 μm x 50 μm)	Yes
1.1.3.	Laser configuration	<ul style="list-style-type: none"> <li>• 488 nm blue laser</li> </ul>	1 pc.
	Sensitivity	<ul style="list-style-type: none"> <li>• ≤80 MESF for FITC</li> <li>• ≤30 MESF for PE,</li> <li>• ≤70 MESF for APC</li> </ul>	
1.1.4.	Laser life time	not less than 20 000 hours	Yes
1.1.5.	Detection Channels	<ul style="list-style-type: none"> <li>• 4 fluorescent detection channels;</li> <li>• detection of side (PMT with 488/10 band-pass filter) and direct light scattering (photodiode detector with 488/10 band-pass filter, optional setting 405/10 nm);</li> <li>• resolution of lymphocytes, monocytes, granulocytes in lysed blood.</li> </ul>	Available
1.1.6.	Ability to work with replaceable filters	Ability to work with bandpass and dichroic filters	Available
1.1.7.	Ability to set the preset sample rate	Availability: 12.5 μL / min, 25 μL / min, 100 μL / min, 200 μL / min, 500 μL / min, and 1000 μL / min.	Available
1.1.8.	Sample feed rate selection	from 12.5 to 1000 μl / min.	Available
1.1.9.	The size range of the analyzed particles	<ul style="list-style-type: none"> <li>• The size range of the analyzed particles: 0.5-50 microns.</li> <li>• When using calibration particles, the minimum size is 0.2 microns.</li> </ul>	Available
1.1.10.	The ability to measure the absolute number of cells without particles comparison	Available	Available
1.1.11.	Sample volume	From 40 μl to 4 ml	
1.1.12.	Data acquisition rate	The maximum speed of 35,000 events / sec. Electronic speed up to 65 0000 events / sec.	

1.1.13.	Supported Sample Modes	<ul style="list-style-type: none"> <li>• Possibility of manual submission of samples from 1.5 ml tubes;</li> <li>• Compatible with tubes from 17x100 mm to 8.5x45 mm;</li> <li>• Ability to work with an automatic module for feeding samples that is compatible with the system and allows you to work with both 96-well and 384-well plates, including high plates.</li> </ul>	Available
1.1.14	Compensation	Fully automated and manual compensation modes, the ability to work in 3D	
1.1.15.	Possibility of retrofitting	<p>Possibility of installation</p> <ul style="list-style-type: none"> <li>• green laser (532 nm, 100 mW);</li> <li>• yellow laser (561 nm, 50 mW);</li> <li>• red laser (637 nm, 100 mW);</li> <li>• violet laser (405 nm, 50 mW).</li> </ul>	Available
1.1.16.	Availability of the liquids container with a level sensor	<p>Containers for:</p> <ul style="list-style-type: none"> <li>• focusing fluid (1.8l),</li> <li>• wash solution (175 ml),</li> <li>• solution to complete the work of the cytometer (175 ml),</li> <li>• waste container (1.8l).</li> </ul>	Available
1.1.17.	Nominal fluid intake	1.8 l / day	Available
1.2.	Unit weight	not more than 29 kg;	Available
1.3.	Source of power	100-240 V, 50/60 Hz, <150 W	Available
1.4.	Software features	<ul style="list-style-type: none"> <li>• Automated base and performance test;</li> <li>• Automated maintenance: ≤15 minutes to start and shut down;</li> <li>• Maximum event file: 20,000,000;</li> <li>• File format: FCS 3.1, 3.0;</li> <li>• Ability to create multiple user profiles in the system, with different passwords and work protocols.</li> </ul>	Available
1.5.	Computer requirements	Processor class Intel Core i7 Microsoft Windows 7 Ultimate / Professional 64 bit, hard disk with a capacity of 80 GB, compatible with 250 GB RAID; RAM 4 GB; graphic interface with a video card with a resolution of 1,920 x 1,200, color transfer 32 bits; DVD-ROM drive.	Available
1.6.	Monitor	23 "LCD or LCD LCD display	Available
1.7.	Keyboard and mouse	Available	Available
1.8.	Starting kit of reagents	Available	Available
1.9.	Supplier Requirements	<ol style="list-style-type: none"> <li>1. The potential supplier must have a manufacturer certified service engineer for repair, diagnostics and calibration of the proposed flow cytometer.</li> <li>2. In the technical specification, the potential supplier should indicate the country of origin and the model (brand) of the proposed equipment.</li> <li>3. The proposed equipment must be new, not previously used. Year of manufacture - not earlier than 2017.</li> <li>4. The potential supplier should have the right from the equipment manufacturer to carry out installation, warranty and post-warranty service, and equipment repair in the Republic of Kazakhstan, have certified engineering personnel and sufficient material and technical base for the maintenance of the proposed equipment.</li> <li>5. The potential supplier undertakes to provide installation and commissioning of equipment and warranty service within 24 months from the date of commissioning.</li> </ol>	Yes