



# THE GREEN TEAM

**SQII**® ELISA PROCESSOR AND  
**AESKULISA**® ELISA TEST KITS

## **SQII FULLY AUTOMATED WALK-AWAY ELISA PROCESSING SYSTEM – MAKING AESKULISA AUTOMATION EVEN EASIER**

**SQII** - the ELISA processor by AESKU.SYSTEMS, designed for labs with medium- to lower-throughput needs

**SQII** - featuring innovative electro-mechanics and software design

**SQII** - a reliable, cost-effective, easy to use and low-maintenance system

**SQII** - packing great automation power in the smallest footprint available in the market

**SQII** - improving your testing capacities while delivering reliable and consistent results

**SQII** - delivering the performance you demand and the value you expect

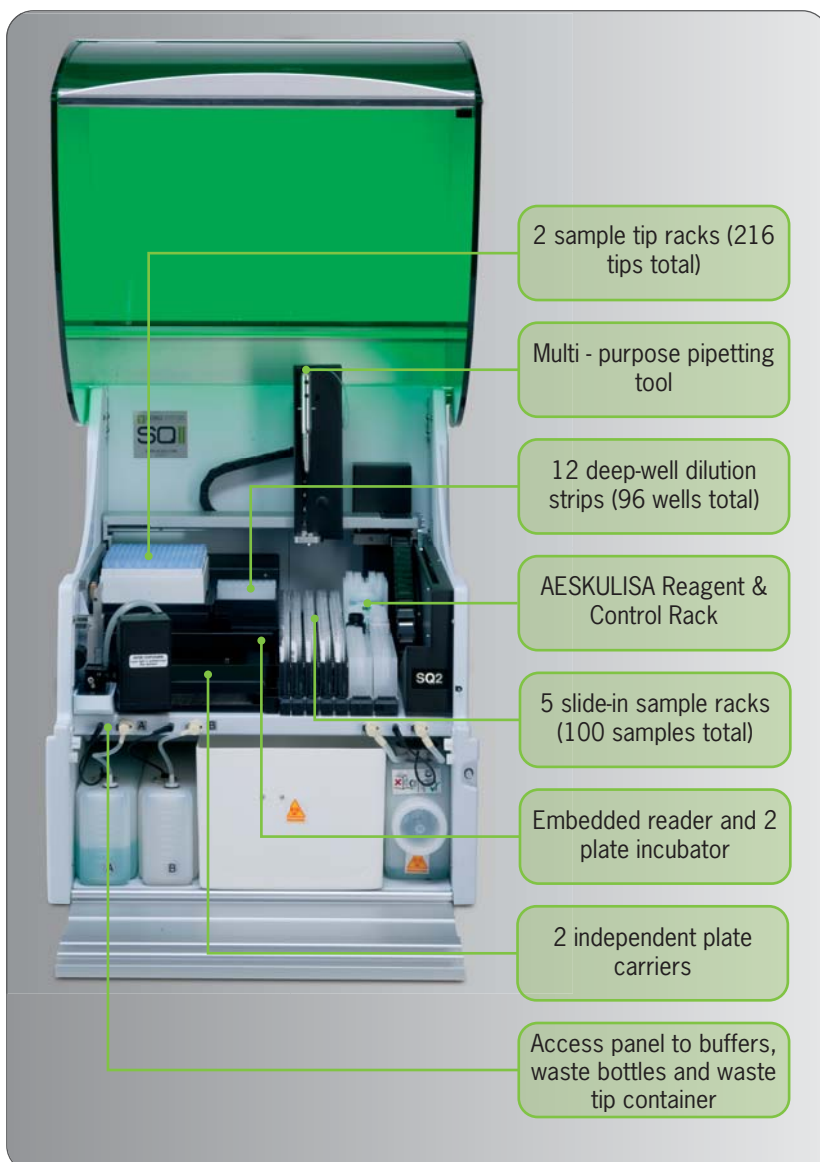
With its full walk-away capability, SQII quickly and easily processes two 96-well microtiterplates and up to 4 different assays simultaneously (Aeskulisa Rack), featuring the most user friendly control system available, sample ID and reagent bar-code reading, assay process and instrument self-diagnostics.

### **SQII DELIVERS SAMPLES-IN / RESULTS-OUT AUTOMATION OF MICROTITERPLATE ASSAYS**



### **INGENIOUS HARDWARE MEETS INTELLIGENT SOFTWARE DESIGN**

SQII was designed for efficiency and reliability. The system has only few moving parts, one multi-functional robot arm does everything: from pipetting to operating the bar-code reader. In addition, the SQII vertical design multi-plate carrier saves space, enabling a minimal footprint with maximum consumable storage:



- 100 bar-coded sample positions
- 216 Sample Tips
- 20 Reagent Tips
- 96 Dilution Vessels in convenient 8-way strips
- 32 calibrator and control positions
- 1 large sample diluent bottle & 6 medium reagent bottles (Aeskulisa Rack)
- 32 Standard control vials (Aeskulisa Rack)

Versatile and truly innovative in its process simulation and ease of use, the SQII software allows the integration of automation in your lab with confidence. The simple, graphical interface enables every lab technician to use SQII with minimal training. The assay creator, with drag-and-drop icons, walks you through the entire programming process, prompting you step by step, making set-up of your assays a breeze. Did you miss a critical process step? SQII will let you know before you can move on.

No more wasting precious reagents or consumables with multiple test runs to validate your assays. Activate the process simulator, and the system shows a full animation of the assay steps outlined. If you want to adjust the assay parameters, you can visualize exactly how it will work before you implement the change. Once you start your assay run, the process timeline and simulator exactly show you where you are and how much time is left. The Electronic Signature Pipetting (ESP) software provides in-process verification of critical fluid and sample transfer.

#### **Worry-free system assures accurate results**

SQII prompts you if action is required, for example, you need to add more reagents or wash fluids – just set up the SQII to deliver an audible alarm and/or send you an e-mail outlining the problem. Integrated self-diagnostics make troubleshooting easy. You can even send AESKU.SYSTEMS technical support a problem description from within the application, with the system information automatically attached.

SQII is pre-programmed and validated to run all AESKULISA test kits developed and manufactured by AESKU.DIAGNOSTICS. Equipped with the AESKULISA custom-made rack, you no longer have to transfer standards and reagents into new and unlabelled vials. By combining the SQII ELISA processor with AESKULISA® test kits you can maximize your automation efficiency while saving hands-on time and costs in unnecessary needed consumables. As an open system, SQII is capable of processing virtually any ELISA application – from clinical diagnostics, such as autoimmune and infectious disease, to food safety and drugs-of-abuse testing.

## AESKULISA TEST KITS & SQ2 FULLY AUTOMATED ELISA PROCESSOR: REAL TEAMPLAYER

125 different AESKULISA® test kits for simplified manual and automated use.



Custom-made SQII rack to directly fit all AESKULISA® standard and reagent kit vials



SQII fully automated ELISA processor will do the rest



Optimize your lab routine with the SQII ELISA Processing System and benefit from the widest range of standardized AESKULISA® tests available for all major autoimmune diseases, infectious diseases and hemostasis.

All AESKULISA kits have been designed to consistently use the same test procedure and common reagents to make the complex autoimmune testing routine – manual and automated an easier task.



Wash Buffer (AESKULISA Common reagent)

### THE AESKULISA RACK FOR SQII - A UNIQUE TOOL FOR A PERFECT COMBINATION

- Processing up to 4 different assays in one run
- Using the AESKULISA common reagents (Wash & Sample Buffer, TMB, Stop Solution)
- Use up to 32 calibrators or quality controls
- All vials directly fit in the AESKULISA Rack

Sample Buffer (AESKULISA Common reagent)

4 different Conjugates

TMB (AESKULISA Common reagent)

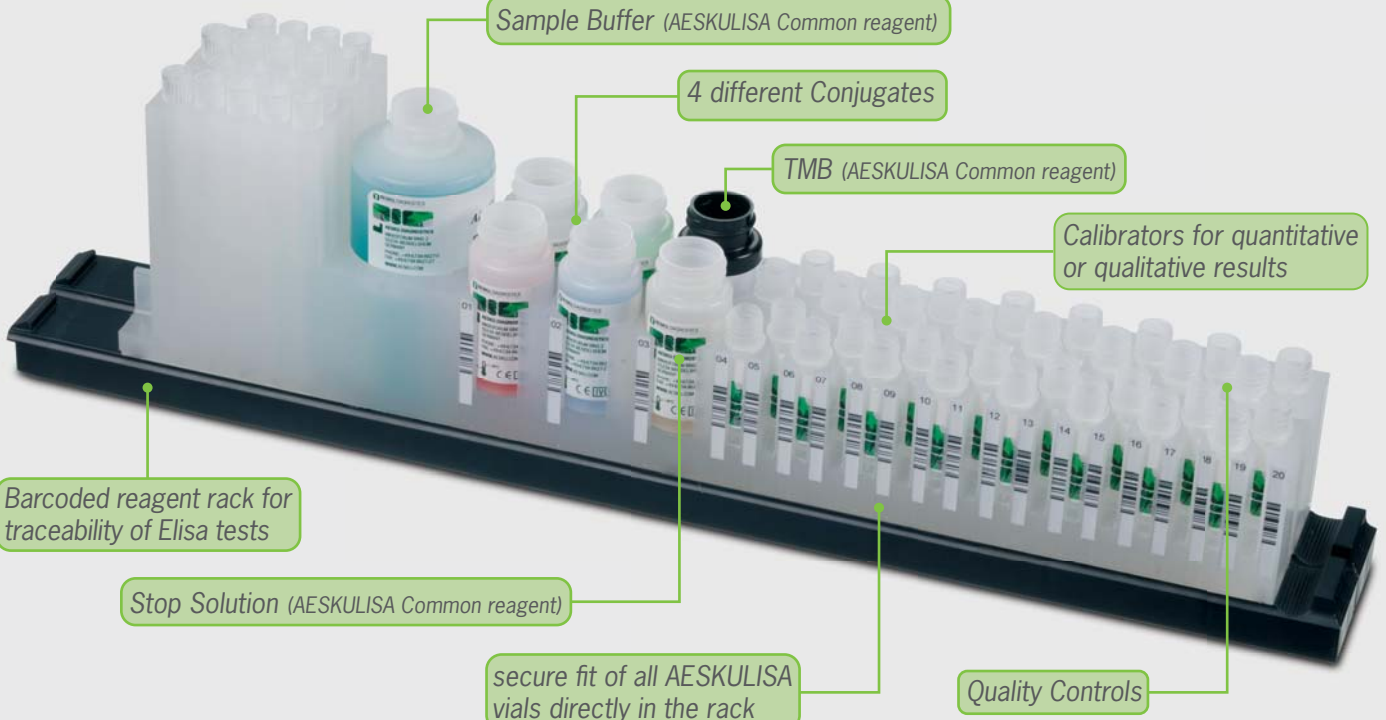
Calibrators for quantitative or qualitative results

Barcoded reagent rack for traceability of Elisa tests

Stop Solution (AESKULISA Common reagent)

secure fit of all AESKULISA vials directly in the rack

Quality Controls



## TECHNICAL SPECIFICATIONS & ORDERING REFERENCE

### Physical specifications

<b>Dimensions:</b>	H x W x D 66 x 54 x 68 cm
<b>Weight (net):</b>	48 kg
<b>Shipping weight:</b>	100 kg
<b>Power supply</b>	
<b>Voltage:</b>	100 – 240 V auto-switching
<b>Frequency:</b>	50/60 Hz
<b>Power consumption:</b>	<300 VA

### General specifications

<b>Number of plates:</b>	2
<b>Sample capacity:</b>	100 per load
<b>Continuous load:</b>	Yes
<b>Sample-tube size:</b>	10 – 16 mm diameter 40 – 100 mm height

### Reagent fluid capacity:

	1 x Sample Diluent Bottle, 110 ml (SQII/AESKULISA Rack)
	6 x Conjugate, Substrate, Stop Solution vials (SQII/AESKULISA Rack)
	32 x 1,5 mL vials (SQII/AESKULISA Rack)

### Control and Standard fluid capacity:

<b>Dilution capacity:</b>	(96) 12 x 8 deep-well strips
<b>Sample-tip capacity:</b>	216 tips
<b>Reagent-tip capacity:</b>	20 tips
<b>Assays per run:</b>	Up to 4 (Aeskulisa Rack)
<b>Selftest at startup:</b>	Yes

### Reader specifications

<b>Dynamic range:</b>	0 – 3.0 OD
<b>Spectral range:</b>	405 – 690 nm
<b>Filter slots:</b>	6
<b>Reading channels:</b>	12 plus reference channel
<b>Reading modes:</b>	Single, dual
<b>Read time:</b>	<30 sec (single wavelength) <50 sec (dual wavelength)
<b>Precision:</b>	<1% CV (<2.0 OD) <1.5% CV (2.0 – 3.0 OD)
<b>Accuracy:</b>	+/- 0.005 OD or 2.5% (whichever is greater)

### Washer specifications

<b>Manifold configuration:</b>	8-way
<b>Dispense-volume range:</b>	50 – 1000 µL
<b>Wash cycles:</b>	1 – 9 (repeatable)
<b>Residual volume:</b>	<3 µL
<b>Super aspirate mode:</b>	Yes
<b>Wash-buffer capacity:</b>	2 x 2 L
<b>Low-buffer alarm:</b>	Yes
<b>Soak time:</b>	0 – 999 seconds
<b>Dispense pressure:</b>	Pre-set
<b>Rinse function:</b>	Input connector for users' external bottle, any size
<b>Waste-water container:</b>	1 x 1.5 L

### Incubator specifications

<b>Temperature range:</b>	Ambient + 4° C to 40° C
<b>Temperature uniformity:</b>	+/- 1° C across plate @ 37° C
<b>Shaking:</b>	Independent linear motion 14-20 Hz (periodic or continuous) Programmable
<b>Incubation time:</b>	<1 min
<b>Time to set temperature:</b>	<1 min
<b>Temperature monitoring:</b>	Yes

### Pipetting specifications\*

<b>Type:</b>	Disposable tips (2 types)
<b>Sample-tip range:</b>	Tip type 300 µL (10 – 250 µL dispense range)
<b>Reagent-tip range:</b>	Tip type 1,300 µL (20 – 1,000 µL dispense range)
<b>Maximum dilution:</b>	1 to 5,000
<b>Serial dilutions:</b>	Yes
<b>Replicates:</b>	Up to 96 samples, standards, and controls
<b>Precision, sample tip:</b>	<3% CV (10 – 200 µL)
<b>Precision, reagent tip:</b>	<3% CV (20 – 1,000 µL)

### Process security

<b>Liquid-level sensing:</b>	Yes (reagents, controls, and samples)
<b>Level-sensor system:</b>	Pressure differential
<b>Clot detection:</b>	Yes
<b>Foam detection:</b>	Yes
<b>Dispense-anomaly detection:</b>	Yes
<b>Tip detection:</b>	Yes
<b>Well-fill verification:</b>	Yes
<b>Alarms:</b>	Yes

### Software

<b>Computer (not included):</b>	Current model desktop or laptop PC running MS Windows® XP or higher (Contact AESKU.SYSTEMS for current specs prior to purchase)
<b>Controlling software:</b>	DS-Matrix™
<b>Work protocols (assays):</b>	Unlimited
<b>Data processing:</b>	Quantitative and qualitative
<b>Levey-Jennings:</b>	Yes
<b>Westgard rules:</b>	Yes
<b>Process reporting:</b>	Event log + error log
<b>Automatic error recovery:</b>	Yes
<b>Password access control:</b>	Yes

Specifications subject to change without notice  
\*Factory calibration and verification of the pipette module are carried out  
using a calibration fluid.  
It is the user's responsibility to perform the validation studies necessary to  
assure proper assay performance.

### SQII® Product list and ordering references

#### Description

System	REF.	Description
	REF. SQ2-1000	SQII AUTOMATED ELISA PROCESSING SYSTEM (incl. standard items)
Accessories	REF. SQ2-3001	Dilution Strips (250x8-well)
	REF. SQ2-3002	Sample Tips Racked (4x108)
	REF. SQ2-3003	Reagent Tips Racked (4x108)
	REF. SQ2-3004	Reagent Bottles 20 ml (24 pack) for use with SQII/AESKULISA rack
	REF. SQ2-3005	Standard/Control Vials 1.5 ml (48 pack) for use with SQII/AESKULISA rack
	REF. SQ2-3006	Sample Diluent Bottles, 110 ml - 24/pack for use with SQII/AESKULISA rack