



# SWEAT TESTING

# MACRODUCT<sup>®</sup> ADVANCED

Sweat Induction and Collection

**GOLD  
STANDARD**



## WORLD LEADER IN LABORATORY CF DIAGNOSIS

For clinical laboratory use by qualified medical personnel for stimulation and collection of sweat from humans for analysis for the diagnosis of cystic fibrosis.

# MACRODUCT® ADVANCED IS SWEAT TESTING AT ITS BEST

More than 5 million sweat tests have been performed with the existing Macroduct® Sweat Collection System. The Macroduct® Advanced is a result of 40+ years of ongoing innovation to further standardize pilocarpine iontophoresis and sweat collection.

## Device

- Easy to use touch screen interface with built in step-by-step graphical instructions
- Flexible data management options
- Meets protocols and traceability requirements



CE  
2797

REVISED ELECTRODES,  
COLLECTOR, AND STRAPS FOR  
GREATER CONVENIENCE WHEN  
WORKING WITH SMALL LIMBS



## Electrodes

- Electrodes detect the absence of Pilogel discs and will not start iontophoresis without the discs



## Sweat Collector

- Elliptical shaped collector is a better fit for small arms
- Minimum amount of sweat needed is 15 microliters in a 30-minute collection period
- Two marks on each collector for checking the minimum volume of sweat required and determining the sweat rate



## Sweat Transfer

- Easyduct® Needle has a tapered blunt end for easy insertion into the tubing and transferring sweat

## Adjustable and Disposable Straps

- Easy to fit and disinfect for reuse



# THE CHLOROCHK® CHLORIDOMETER®

## THE PERFECT CF DIAGNOSTIC COMPANION

The ChloroChek® Chloridometer® is a coulometric titrator designed to determine chloride ion concentrations in sweat samples with just 10 microliters of sweat. It displays the concentration directly in mmol/L Cl<sup>-</sup>. The sweat sample is added to a buffer/stabilizer working solution.



CE IVD

### Key Advantages

- Easy to operate with consistent results in less than 20 seconds
- Intuitive touchscreen interface with simple prompts
- Maintenance for electrodes is simple – a daily rinse with deionized water
- Electrodes are simply pushed into place
- Results can be exported for complete traceability



**SWEAT CONTROLS ARE AVAILABLE, WITH THREE LEVELS, TO INSURE THE HIGHEST QUALITY CONTROL PROCEDURES TO MEET REGULATORY REQUIREMENTS**



# Macroduct Advanced® Sweat Collection System Model 3710

\*Includes all needed accessories and one supply kit. Each kit contains 12 Macroduct Advanced Pilogel discs, 6 Macroduct Advanced collectors, and 6 small sealable containers.

Iontophoresis Current (nominal control)	(a) Current profile-controlled ramp-up and ramp-down (b) 1.5 mA (c) Fail-safe current limited by circuit design
Electrode Cable Assembly	Color-coded elliptically shaped electrodes to fit elliptical Pilogel discs
USB Connection	Micro USB connector for exporting test data
Power	Rechargeable lithium ion battery
Device & Carrying Case Weight	5 lbs (2.3 kg)

## ChloroChek® Chloridometer® Model 3400

Sample Volume	10 µL
Duration of Measurement	Approximately 20 Seconds
Reproducibility (*Generally limited by the sample dispensing system/ pipette accuracy)	CV of 1.02% at 100 mmol/L
Measurement Display	0 - 999 mmol/L
Clinical Measuring Range	10 - 160 mmol/L
Resolution	1 mmol/L over the entire measurement range
Integrated Stir Bar	PTFE coated magnetic cylindrical stir bar
Environmental Operating Conditions	Indoor use; no direct sunlight
Operating Temperature (ambient)	10 °C to 35 °C / 50 °F to 95 °F
Storage Temperature	-40 °C to 70 °C / -40 °F to 158 °F
Room Humidity	5 - 80% (non-condensing)
Altitude	Up to 2000 m
Electrical Voltage	100 -120 VAC / 200 - 240 VAC
Frequency	50 - 60 Hz
Power	20 VA
Electrical Connection	Detachable power supply cord
Fuses (2): HBC breaking capacity 1500 A	1.0 A for 100-120 VAC 0.5 A for 200-240 VAC
Memory Backup	Integral lithium cell: (10 years typical)
Dimensions: (W x D x H)	20.5 x 22.0 x 36.0 cm (8.0 x 8.1 x 14.2 inches)
Weight	Approximately 5.7 kg (12.54 lbs.)
Data Output	Serial RS-232 / USB

SPECIFICATIONS

ORDER INFORMATION

	Catalog Number	Description		Catalog Number	Description
Macroduct Advanced	MODEL 3710-SYS	Macroduct® Advanced 3710 Sweat Collection System	ChloroChek	MODEL 3400	ChloroChek® Chloridometer® Sweat Chloride Analyzer
	AC-193	EasyDuct Needle/1cc Syringe, Pack of 3		AC-071	Ampule Organizer for Sweat Controls
	RP-537	Electrode Cable Assembly Macroduct® Advanced		SS-150	Sweat Controls, L1, L2, L3 12 ea., 36x0.75mL
	SS-107	Small Sealable Containers, Pack of 6		SS-248	ChloroChek® Reagent Set, 37x10mL BS + 1x30mL GS
	SS-268	Macroduct® Advanced Supply Kit		SS-251	ChloroChek® Standard Solution, 100 mmol/L, 10x1mL
	SS-268-ND	Macroduct® Advanced Supply Kit, No Dye Collectors			
	SS-269	Strap Set, 18 ea, Macroduct® Advanced			
	SS-270	Strap Set, 180 ea, Macroduct® Advanced			
	SS-271	Electrode Cleaning Pads, Pack of 10			

**WORLDWIDE OFFICES**  
Please contact your sales representative for terms, conditions and product availability in your country.

**bsi** ISO 13485 Medical Devices Quality Management  
**MDSAP** MEDICAL DEVICE SINGLE AUDIT PROGRAM  
FM 703046 MDSAP 689350

ELITechGroup has been certified by BSI to ISO 13485:2016 under certificate numbers MDSAP 689350 and FM 703046

<b>Headquarters</b>	<b>+33 1 41 45 07 10</b>		
Australia	T: +61 1800 815 098	Canada	T: +1 888 662 4925
Belgium & Luxembourg	T: +32 9 282 05 31	Serbia	T: +381 11 2467119
Brazil	T: +55 27 3025 1415	The Netherlands	T: +31 313 430 500
France	T: +33 4 83 36 10 82	UK	T: +44 1442 869320
Italy	T: +39 02 48 40 35 42	United States	T: +1 435 752 6011
New Zealand	T: +64 800 555 611		

**ELITechGroup**  
EMPOWERING IVD  
**MACRODUCTADVANCED.com**  
**info@elitechgroup.com**