



Operating Instruction Manual

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CElixirPro3™

Kits for use with CE Quantitative Determinations of Proteins & Peptides

Instructions for use.

1. Intended use and background:

This kit consists of poly-cation and poly-anion solutions that can be used for the quantitative determinations of proteins and peptides. The poly-cations and poly-anions will dynamically coat the inner surface of the capillary wall and produce a fast and consistent EOF (electro-osmotic flow). Patent 5,611,903

2. Contents:

CElixir-Pro Initiator: 10ml of poly-cation in NTMP buffer pH=7.2
as a ready to use reagent.

CElixir-Pro Buffer pH4: 25ml of a poly-anion in NTMP buffer pH=4.0
as a ready to use reagent.

CElixir-Pro Buffer pH7.2: 25ml of poly-anion in NTMP buffer pH=7.2
as a ready to use reagent.

CElixir-Pro Diluent: 50ml of NTMP buffer pH=7.0 as a ready to use reagent.

Not included in this kit: bi-distilled water, NaOH, 0.1M, capillary, vials and caps.

3. Operating Instructions:

This Operating Manual is written for the Beckman P/ACE MDQ—other instruments can be programmed differently.

3.1 Capillary for use: Simplus™ or other brand of bare fused silica, 50um x 60cm or suitable lengths.

3.2 Instrument: Load CE Instrument as follows:

<u>Buffer Inlet</u>	<u>Buffer Outlet</u>
A1 Conditioner NaOH 0.1M	A1 Water 1ml
B1 Initiator 1.4ml	B1 Buffer 1.4ml
C1 Buffer 1.4ml	C1 Buffer 1.4ml
D1 Water 1.4ml	
E1 Buffer 1.4ml	

3.3 Capillary Initialization:

Initial Conditions							
UV Detector Initial Conditions							
Time Program							
	Time (min)	Event	Value	Duration	Inlet val	Outlet val	Summary
1	0.00	Separate - Pressure	50.0 psi	1.00 min	BI:A1	BO:A1	forward
2	1.00	Rinse - Pressure	50.0 psi	1.00 min	BI:B1	BO:A1	forward
3	2.00	Rinse - Pressure	50.0 psi	2.00 min	BI:C1	BO:A1	forward
4	4.00	Rinse - Pressure	50.0 psi	1.00 min	BI:A1	BO:A1	forward
5	5.00	Stop data					
6		End					
7							

3.4 Separation

3.4.1 Initial Condition Settings:

Initial Conditions UV Detector Initial Conditions Time Program

Auxiliary data channels:

☐ Voltage max: 30.0 kV

☒ Current max: 300.0 μ A

☐ Power

☐ Pressure

Mobility channels:

☐ Mobility

☐ Apparent Mobility

☒ Plot trace after voltage ramp

Analog output scaling

Factor: 1

Temperature

Cartridge: 25.0 $^{\circ}$ C

Sample storage: 25.0 $^{\circ}$ C

Peak detect parameters

Threshold: 2

Peak width: 9

Trigger settings

☐ Wait for external trigger

☐ Wait until cartridge coolant temperature is reached

☐ Wait until sample storage temperature is reached

Inlet trays

Buffer: 36 vials

Sample: 48 vials

Outlet trays

Buffer: 36 vials

Sample: No tray

3.4.2 UV Detector Settings:

Initial Conditions UV Detector Initial Conditions Time Program

Electropherogram channel

☒ Acquisition enabled

Wavelength: 200 nm

Data rate: 4 Hz

Filter

☐ High sensitivity

☒ Normal

☐ High resolution

Peak width [points]: 16-25

Relay 1

☒ Off

☐ On

Relay 2

☒ Off

☐ On

Absorbance signal

☒ Direct

☐ Indirect

3.4.3 Time Program Settings:

	Time (min)	Event	Value	Duration	Inlet val	Outlet val	Summary
1		Rinse - Pressure	50.0 psi	0.50 min	BI:B1	BO:A1	forward
2		Rinse - Pressure	50.0 psi	1.00 min	BI:C1	BO:A1	forward, In val inc 5
3		Inject - Pressure	0.5 psi	8.0 sec	SI:A1	BO:C1	No override, forward
4		Inject - Pressure	0.2 psi	3.0 sec	BI:D1	BO:B1	No override, forward
5	0.00	Separate - Voltage	20.0 KV	19.50 min	BI:E1	BO:B1	1.00 Min ramp, normal polarity, In / Out val inc 5
6	2.00	Autozero					Buffer 1.4ml
7	19.50	Rinse - Pressure	50.0 psi	0.50 min	BI:A1	BO:A1	forward
8	20.00	Stop data					NaOH 0.1M - Water 1ml
9	20.00	End					
10							

4.0 Mixing Buffers

Buffers at different pH values can be prepared by mixing CElixir-Pro3 Buffer pH=4 and CElixirPro3 Buffer pH=7.2 as follows:

<i>Desired pH:</i>	<i>Buffer pH=4</i>	<i>Buffer pH=7.2</i>
6.2	2.0g	8.0g
5.2	5.0g	5.0g
4.5	8.0g	2.0g

Reordering Information:

06500-P3 CElixir-Pro3, kit for quantitative determinations of proteins and peptides by CE. 100 tests per kit.

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