

CUGEN Limited
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The Chinese University of Hong Kong

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Attention to: The Chairperson of the Biology Panel
From: CUGEN Ltd.,
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Total number of pages: 5
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Subject: Ordering of Gel Electrophoresis Unit, Reagent Kits , DNA stain and small equipment in 2012

We are pleased to inform you that the annual ordering of Gel Electrophoresis Unit (Fig. 1) and Reagent Kits is now available. We have been providing this homemade equipment and reagents to secondary school since 1998 for laboratory demonstration and experiment.

We will launch a new Forensic DNA kit in this summer. This Forensic DNA kit will mimic a crime scene situation. DNA samples extracted from the victim and suspects will be provided in the kit. As in the previous DNA fingerprinting kit, students are required to cast an agarose gel for analysis of the provided DNA samples by electrophoresis. Figure 2 shows the sample results and students are required to identify, with state reasons, which suspect is the criminal. The Forensic DNA kit will come contain the SYBR safe staining solution for rapid DNA visualization after electrophoresis. With the SYBR safe staining, no overnight staining and destaining steps are necessary and the DNA patterns can be visualized on the blue-light box immediately after the electrophoresis with the help of an amber filter. You may visit our website at <http://www.bch.cuhk.edu.hk/workshop-DNA> for further details. With the use of SYBR safe and the blue-light box, the whole experiment can be completed within 3 hours.

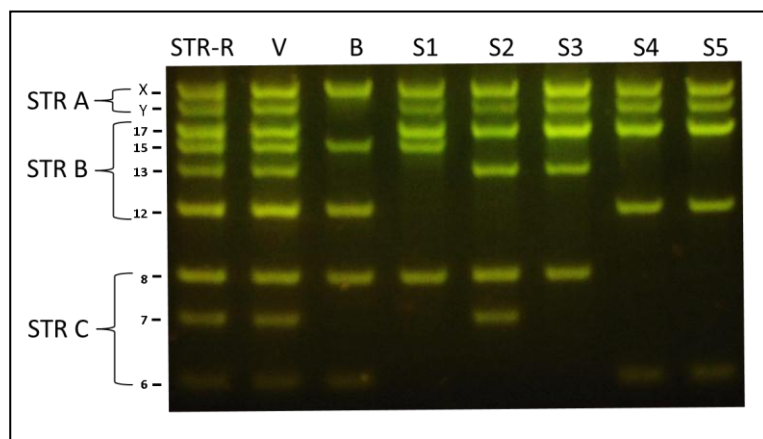
Another kit available is the DNA fingerprinting kit (Version 7) with the results resembling that of a paternity test. After the experiment, the students should be able to differentiate who the biological, step and adopted child are based on DNA fingerprints (Fig. 3). You may visit our website at <http://www.bch.cuhk.edu.hk/workshop-DNA> for further details. The DNA fingerprinting kit will contain the methylene blue solution for overnight DNA staining and visualization. This kit is also compatible with the SYBR safe staining procedure. With the use of SYBR safe and blue-light box, the whole experiment can be finished within 3 hours.

SYBR safe staining solution and home-made blue-light box with amber filter are available from CUGEN Ltd at a reasonable price. Please be informed that the earlier versions of the DNA fingerprinting kits are also compatible with the new SYBR staining protocol.

Fig. 1

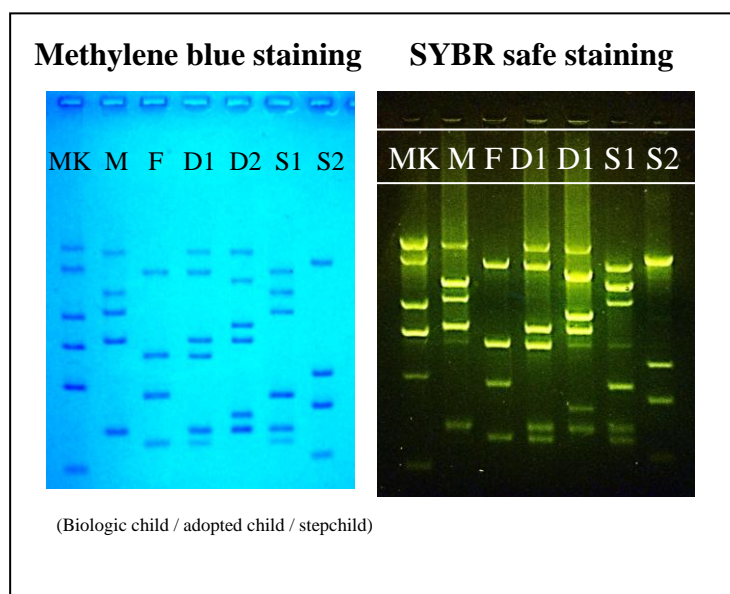


Figure 2



STR R: STR references of STRA, B and C V: Vaginal swab from the victim
 B: Buccal swab from the victim S1: Buccal swab from suspect 1
 S2: Buccal swab from suspect 2 S3: Buccal swab from suspect 3
 S4: Buccal swab from suspect 4 S5: Buccal swab from suspect 5

Figure 3



MK: Markers
 M: Mother
 F: Father
 D1: Daughter 1
 D2 Daughter 2
 S2 Son 1
 S2 Son 2

We are also pleased to inform you that bulk ordering for small equipment is also available from CUGEN Ltd with special discounts. Products offered include mini-centrifuges, power supply units and autopipettes which are compatible with our Gel Electrophoresis Units and DNA Kits.

These equipment will facilitate your teaching and saves time. The pipette allows you to aspirate liquid in microlitre volumes accurately and makes DNA sample-loading easier. The mini centrifuge allows you to spin liquid to the bottom of the tubes with ease. The power supply units are available in two outlets and four outlets formats, meeting the specific needs of different laboratories.

All these equipment are now available at low prices from CUGEN Ltd. For details of ordering, please refer to the attached order form. All small equipment comes with 1 year free maintenance guarantee provided by the corresponding suppliers. In order to serve as many schools as possible, we accept ordering

from now till 23 July 2012. However, no late requests will be accepted.

Notes:

- 1) The results generated from the Forensic DNA kit will mimic the situation of a crime scene. Seven DNA samples with a STR marker will be provided. There are two victim's samples. One is the victim's vaginal swap while the other is her buccal cell swap. Other DNA samples are collected from five different suspects including one from the criminal. Students need to identify the criminal with reasons. For the DNA fingerprinting kit, there are two samples representing the DNA from a couple. The rest of the samples are collected from two representative authentic offspring, one representing a step-child and the other one representing an adopted child. Students should be able to determine the identities of those offspring based on the results of the gel electrophoresis.
- 2) All **DNA Kits** are composed of all necessary reagents for a single experimental run. However, Gel Electrophoresis Unit and the Blue light box can be re-used many times.

3) The Gel Electrophoresis Units and Reagent Kits will be ready for delivery in late September or early October 2012.

4) Small equipment will be delivered separately by individual supplier ASAP.

 <p>VIPRΩ LIQUID HANDLING</p>		
ViPR pipette (2-20 μ l / 10-100 μ l / 20-200 μ l / 100-1000 μ l)		AS Mini Centrifuge (Suitable for 2.0/1.5/0.6/0.2ml tubes & 0.2ml strip)
		
Major Science Mini Pro 300 10-300V DC power supply (Two pairs outlets)		Major Science MS 300V 2-300V DC power supply (Four pair outlets)
	<p>Sample result</p> 	
Blue light box with amber filter and 24V DC transformer		

CUGEN Limited, Biochemistry Program,
SCHOOL OF LIFE SCIENCES,
THE CHINESE UNIVERSITY OF HONG KONG
Gel Electrophoresis Unit, Reagent Kit, DNA stain and Small Equipment Order Form

Name of School: _____ (English) _____ (Chinese)

Contact Person: _____ (Mr./Ms./Mrs.) Email: _____

School Address (English): _____

School Address (Chinese): _____

Contact: _____ Tel: _____ Fax: _____

Reagent Description	Unit Price (HK\$)	Quantity	Amount (HK\$)
Gel Electrophoresis Unit ^(Note 1-3)	440		
Reagent Kit- DNA fingerprinting kit ^(Note 1-3)	350		
Reagent Kit- DNA fingerprinting kit ^(Note 1-3) (with SYBR safe staining solution)	380		
Reagent kit: Forensic DNA kit ^(Note 1-3) (with SYBR safe staining solution) <i>Promotional price</i>	350		
SYBR safe staining solution (sufficient for ONE agarose gel staining) Remarks: Should be used in combination with the Blue light box	40		
		Sub-total:	

	Small Equipment Description	Unit Price (HK\$)	Quantity	Amount (HK\$)
Pipette	ViPro Mechanical pipette (2-20μl) with one pack of pipette tip for free	550		
Pipette kit	3X ViPro Mechanical pipette (2-20μl) with 3 packs of pipette tip for free	1650		
Mini centrifuge	AS Mini-6K, 6000rpm	1500		
Power supply A	Major Science –Mini Pro 300 10-300V (double outlets)	2750		
Power supply B	Major Science – MS 300V (four outlets)	3750		
Light box	Blue light box with amber filter, 24V	1200		
Pipette tip	Additional 20 μl pipette tip (96 tip per rack)	60		
			Sub-total:	
				TOTAL:

Please send the completed order form with payment* to the following address **BEFORE 23 JUL 2012**.
Late requests **WILL NOT** be entertained. *Please make cheque payable to: **CUGEN Limited**.
Attention: Miss Fion Yung, School of Life Sciences, The Chinese University of Hong Kong, Shatin, N.T.

Signature of corresponding teacher

School chop

Cheque number

Date

FOR OFFICE USE ONLY

Order / Receipt No. : _____ Remarks: _____

Invoice sent on. : _____

Receipt sent on : _____