

win a magnum of champagne!

For your chance to win a magnum of champagne simply enter our prize draw competition.

Instructions:

To enter you will need to visit the Maxwell[®] 16 site and complete the missing word below.

To find the answer please go to www.promega.com/maxwell16

The Maxwell system processes up to 16 samples in about _____ minutes



Terms and conditions:

Entrants must provide the entry details as specified.

Competition is only open to UK entrants.

Only one entry per person is permitted.

The prize may not be transferred to any other person.

No cash alternative or alternative prize is available on request, but in the event of the advertised prize being unavailable we reserve the right to offer an alternative prize of equal or greater value.

The prize draw will randomly pick 10 winners who will each receive a magnum of champagne.

Prize draw will take place on 30th June 2007.

To Enter:

Either complete the missing time online at: www.promega.com/uk/competition
Email your answer to: ukmarketing@promega.com
or Faxback to: 0800 980 3966



You can also enter our competition or request information by emailing: ukmarketing@promega.com or online at: www.promega.com/uk/competition



faxback 0800 980 3966

PLEASE COMPLETE WITH YOUR WORK CONTACT DETAILS

Title: _____
First Name: _____
Surname: _____
Dept: _____
Institute/Company: _____
Address: _____
Postcode: _____ Telephone: _____
Fax: _____ Email: _____

Promega UK
Delta House
Southampton Science Park
Southampton
SO16 7NS

Tel 023 8076 0225
Fax 023 8076 7014

Freephone 0800 378994
Freefax 0800 181037

www.promega.com



please send me the following



2007 Promega Life Sciences Catalogue



Apoptosis Pack



HaloTag[®] Pack



Maxwell[®] 16 Brochure

PROMEGA NOW

News from Promega and the world of Life Sciences in the UK

May 2007

DRUG DISCOVERY & SCREENING EDITION

Issue 26

Maxwell[®] 16 at The Roslin Institute

The Henry Wellcome Imaging Suite

Utilising HaloTag[®] to study cell surface proteins

Special Offers

Up to 50% off a selection of Promega products

Competition

Win a magnum of champagne!

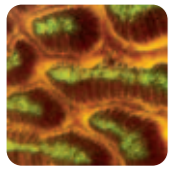
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Did you know?
Human thigh bones are stronger than concrete.




Promega



welcome



Welcome to the 26th edition of Promega's UK newsletter.

It can only be good news that Gordon Brown announced increased investment in research and development in his Budget. Spending on the Government's science and innovation investment framework remains on track, and a 25% increase has been confirmed over the four years to 2010. We are talking about big numbers: £6.3bn of public money will be spent on our industry. This includes a welcome boost of £100m in partnerships between academia and the pharmaceutical industry. The pharmaceutical industry currently works on 330 collaborative ventures with academia in the UK and trains 670 PhD students, and the extra funding will help that work continue. Good collaborative links between pharmaceutical companies and universities benefit both parties through the sharing of resources, experience, and expertise. However, despite this funding, there remains huge pressure to innovate for greater efficiency.

Automation in the laboratory is a key innovation – and those companies that have adopted wholesale automation are gaining a competitive edge as a result. We have seen the industry move rapidly from home-brew to kit-based solutions for many common applications, and automation is the next step-change in lab efficiency.

At Promega, we call this Personal Automation™. In this issue of Promega Now we look at how our automation technologies are helping researchers at the Roslin Institute maintain their position of leadership in animal biosciences. You will see how Promega's Maxwell® 16 instrument has increased efficiency by freeing up the researchers' time, and how the Maxwell® 16 instrument compares to the competition.

This issue of Promega Now also includes:

- A guide to assessing automation equipment for your laboratory
- Information on our portfolio of apoptosis assays
- News on the HaloTag® system of innovative protein imaging and analysis technologies
- Our regular competition - enter today for your chance to win a magnum of champagne!

Finally, on page 6, you will see the different events around the country which we will be attending. We hope to see you at one of them.



Derek McCall
Managing Director, Promega UK

HaloTag® technology for cell surface proteins

HaloTag® is a versatile tool for protein imaging and analysis, which can provide important information about protein dynamics and function. The technology comprises of HaloTag® peptide, which is fused to a protein of interest, and synthetic HaloTag® ligands, which confer functionality, allowing a fusion protein to be visualised or analysed.

Now available from the HaloTag® stable of ligands is Alexa Fluor® 488, a cell-impermeable ligand, which enables cell surface proteins to be imaged. By combining Promega's cell permeable ligands with the Alexa Fluor® 488 ligand, it's possible to explore spatial separation and real-time translocation of protein pools in live cells (Figure 1).

One Promega customer, Michael Hollinshead, head of The Henry Wellcome Imaging Suite at Imperial College, is excited about the Alexa Fluor 488® ligand. Michael is working with HaloTag® and says "Binding of the reporter protein and its ligand is fast and highly specific. There is no background with HaloTag® (Figure 2), which can be a real problem with other technologies". Michael will use the Alexa Fluor® 488 ligand to look at the internalisation of cell surface proteins.

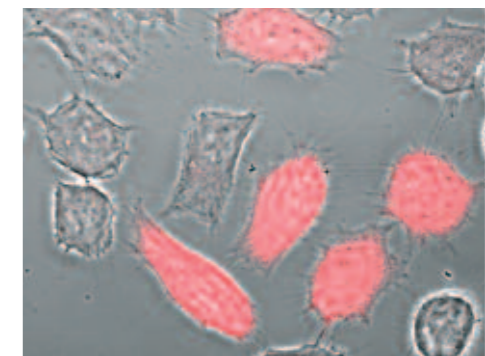


Figure 2: Binding of the HaloTag® reporter protein and the HaloTag® TMR ligand.

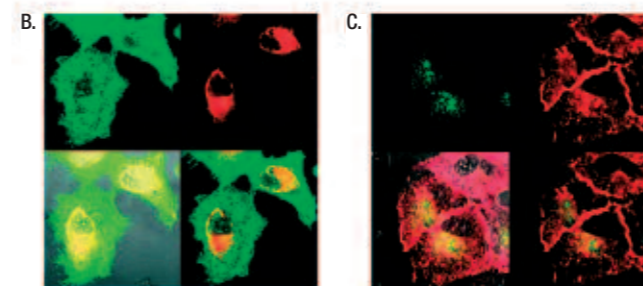
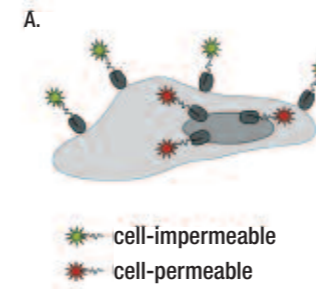


Figure 1: Spatial and temporal separation of protein using HaloTag® Technology. **Panel A:** Schematic of a cell expressing β1 Int-HaloTag® protein pulsed with Alexa Fluor® 488 and chased with permeable TMR. **Panel B:** HeLa cells pulsed and chased with Alexa Fluor® 488 and TMR, respectively. **Panel C:** Differentially labelled proteins moved from the cytoplasm to the membrane and were then internalised. Experimental details can be found in Promega Notes 95, www.promega.com/pnotes

“ Binding of the reporter protein and its ligand is fast and highly specific. There is no background with HaloTag®, which can be a real problem with other technologies ”

Michael Hollinshead,
The Henry Wellcome Imaging Suite,
Imperial College

sensitivity an issue with your caspase assay?

- **Sensitive** – Use less enzyme or fewer cells
- **Simple** – ‘Add, mix and measure’ format
- **Fast** – No sample preparation or extended incubation times
- **Get more information** – Multiplex with other Promega cell-based assays

i To try our Caspase Assays please refer to our special offers on page 7.

	Sensitivity	
	96-well	384-well
Apo-ONE® Homogeneous Caspase-3/7 Assay	200 cells	20 cells
Caspase-Glo® 3/7 Assay	20 cells	20 cells

Promega's caspase assays are 50-100 times more sensitive than competing technologies!

Promega offers a range of homogeneous assays for measuring caspase 3/7, 8 and 9 activity. All assays produce a linear response with caspase concentration and have signal windows several orders of magnitude greater than competing assays.

New HaloTag® Products

Product	Cat. No.	Size	Conc.
HaloTag® Alexa Fluor® 488 Ligand	G1001	30µl	1mM
HaloTag® Oregon Green® Ligand	G2801	30µl	1mM
Anti-HaloTag® pAb	G9281	200µg	1mg/ml

i Why not try HaloTag® in your lab? Turn to page 7 for introductory offers on HaloTag® vectors and ligands.



Did you know?

The placement of a donkey's eyes in its head enables it to see all four feet at all times.



For more information on HaloTag® Technology please visit www.promega.com/uk/halotag
To request an information pack visit www.promega.com/uk/forms/information_pack

Maxwell® 16 at the Roslin Institute



At the touch of a button, you achieve a new level of confidence in your results. We call this Personal Automation™.

“ Our mission is to keep scientists as close to their science as possible. Researchers need to have access to automation that gives them more capability and control without great expense. Personal automation as exemplified by Maxwell® 16 is a big step in reaching that goal. ”

*Bill Linton,
President & CEO, Promega Corporation*

Promega is the world's second largest provider of nucleic acid purification systems, with a mission to challenge established brands and provide better choices for researchers. Since the introduction of the Maxwell® 16 System in 2005, Promega has become the recognised source for automated, intermediate-throughput extraction systems.

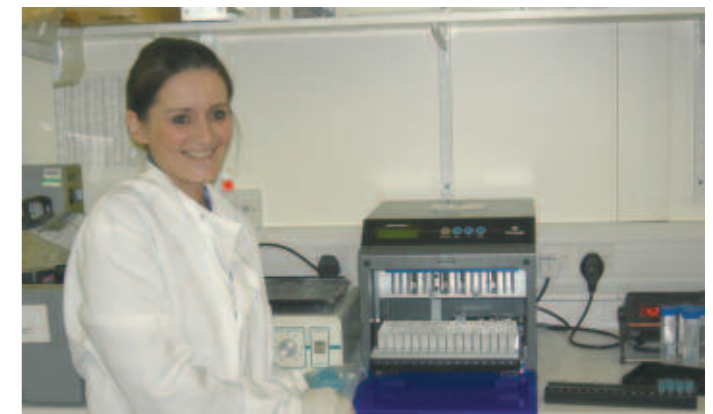
At the Roslin Institute, David Morrice works in the ARK-Genomics Core Laboratory, investigating quantitative trait loci (QTL's) for agriculturally important animals. "We were spending too much time on manual DNA purification" said David, "but our sample types meant that automation of traditional membrane based systems was problematic". The lab processes samples from all over the country, and they have often been stored in less than ideal conditions. In addition to this, sheep blood, which is one of the main sample types, is very viscous and tends to clog membrane based purification systems. "We needed a system that could handle these samples, free up our time and be easy to use so that we could get on with the real research".

David's group tested three systems, Promega's Maxwell® 16 System, the Qiagen Biorobot M48 and the Invitrogen iPrep™. "The Biorobot M48 was much too big for the lab and gave no throughput advantage. The time and expertise required to set it up took away all the benefit of the extra number of samples per run. The iPrep™ cost more for both the instrument and the individual purification cartridges and did not offer an integrated homogenisation step, essential for processing tissue samples, so in the end Maxwell® 16 was the obvious choice".

The Maxwell® 16 instrument was installed in January and since then things have changed dramatically in the lab. "I don't do much DNA purification now" says David, "the instrument is operated by our Laboratory Assistant, Caroline Gilhooly, she can easily get through over a hundred samples a day". The lab has gone on to run chicken blood and chicken liver samples. "The great thing about running the chicken liver samples is that there is no pre-processing or proteinase k digestion. You just drop them in the cartridge and press go!" The integrated homogenising action of Maxwell® 16 means that tissue samples are broken up during the purification run, reducing or completely eliminating the need for pre-processing.

"Typically we see yields of 10 to 70µg/ml from 300µl of sheep blood and 400µg/ml from 30µl of chicken blood. The liver samples give us 400µg/ml from around 40mg of tissue." The lab is now testing sheep muscle and semen samples with an expectation of similarly good results.

Downstream analysis involves SNP genotyping and micro-satellite analysis "results are every bit as good as we achieved with our old manual extraction methods". Examples of their results are shown in Figure 1.



Caroline Gilhooly from ARK-Genomics, undertaking tests with Maxwell® 16 Purification instrument.

“ I would definitely recommend Maxwell® 16 to anyone else considering automation for their lab. ”

*David Morrice,
Genomics & Genetics Department,
Roslin Institute*

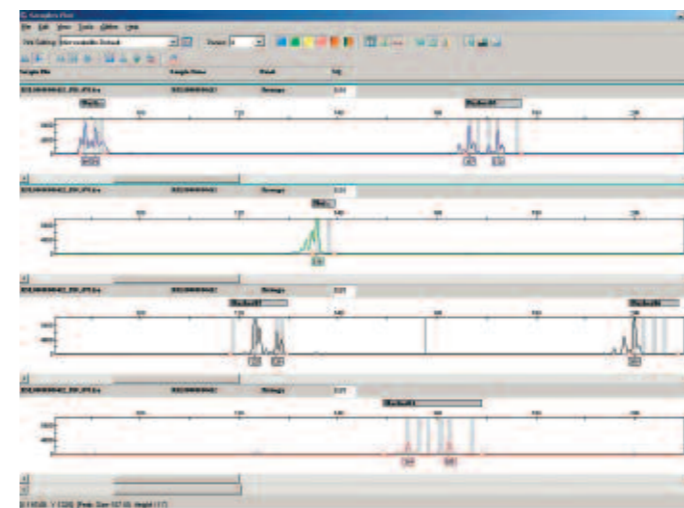


Figure 1: Sample Plot from the Applied Biosystems 3730xl DNA Analyser where a multiplex PCR of 6 micro-satellites was used to test DNA prepared by the Maxwell® 16 Purification instrument.

Maxwell® 16 facts and figures

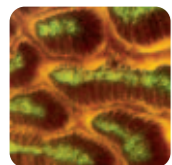
Samples per run	16
Run time	20 to 40 minutes (depending on sample type)
Purification options	Genomic DNA Total RNA Forensic DNA Protein Purification
Sample types	Cell Culture Blood Tissue
Format	Individual single use purification cartridges
Dimensions	31cm x 37cm x 29 cm (WxDxH)



Did you know?
A rhinoceros' horn is made of compacted hair.



Did you know?
Termites eat wood twice as fast when listening to heavy metal music.



news & events



Right: Tobias Silberzahn, Guy's Hospital, Kings College London
Left: Award presented by Dr Gordon Ford, Technical Sales Specialist, Promega



Left: Mr. Martin Brandenbury from the Paterson Institute for Cancer Research
Right: Dr. Damien Wells, Technical Sales Specialist, Promega.

Promega Young Immunologist 2007

Promega's Young Immunologist award for 2007 was held at the annual meeting of the British Society of Immunology in February. Tobias Silberzahn won the award with his abstract on 'Early events that trans-condition developing T cells in the Thymus'.

Promega supports awards for Young Scientists in Immunology, Biochemistry and Genetics. For information on taking part visit www.promega.com/uk/ylysya.

<http://immunology.org/>

Academic Roadshow Laptop winner

Many of you took the opportunity to visit us during our 'Academic Roadshows' which ran through October and November last year. The winner of the laptop prize draw was 2nd year PhD student, Mr. Martin Brandenbury from the Paterson Institute for Cancer Research, Christie Hospital, Manchester.

We look forward to seeing you all again next year.



Date	Event Title	Event Location
20 June 2007	ELRIG - Automated Liquid Handling	Whittlebury, Northants, UK
9-12 July 2007	LifeSciences 2007	SECC, Glasgow, UK
2-3 October 2007	ERLIG- Drug Discovery	East Midlands Conference Centre, UK
17 October 2007	ERBI BenchtoBoardroom	Chilford Hall, Cambridgeshire

special offers

Protein Imaging and Analysis	Cat. No.	Size	List Price	Discount	Special Offer Price
pFC8A (HaloTag [®]) CMV Flexi [®] Vector	C3631	20µg	£196	50%	£98.00
pFC8K (HaloTag [®]) CMV Flexi [®] Vector	C3641	20µg	£196	50%	£98.00
HaloTag [®] TMR Ligand, 5mM	G8251	30µl	£291	50%	£145.50
HaloTag [®] Alexa Fluor [®] 488 Ligand, 1mM	G1001	30µl	£291	50%	£145.50
HaloTag [®] Oregon Green [®] Ligand, 1mM	G2801	30µl	£291	50%	£145.50
Anti-HaloTag [®] pAb, 1mg/ml	G9281	200µg	£150	50%	£75.00

Caspase Assays for Apoptosis Detection	Cat. No.	Size	List Price	Discount	Special Offer Price
Caspase-Glo [®] 3/7 Assay	G8090	2.5ml	£68	50%	£34.00
Caspase-Glo [®] 8 Assay	G8200	2.5ml	£68	50%	£34.00
Caspase-Glo [®] 9 Assay	G8210	2.5ml	£68	50%	£34.00
Apo-ONE [®]	G7792	1ml	£40	50%	£20.00

One Strain for Efficient Cloning and Protein Expression	Cat. No.	Size	List Price	Discount	Special Offer Price
Single Step (KRX) Competent Cells	L3001	5 x 200µl	£120	50%	£60.00
	L3002	20 x 50µl	£140	50%	£70.00
L-Rhamnose Monohydrate	L5701	10g	£23	50%	£11.50
	L5702	50g	£84	50%	£42.00

Miniprep Plasmid DNA Purification System	Product	Cat. No.	Size	List Price	Discount	Special Offer Price
Wizard [®] Plus SV Minipreps DNA Purification System		A1330	50 preps	£56	30%	£39.20
		A1460	250 preps	£231	30%	£161.70
Wizard [®] Plus SV Minipreps DNA Purification System and vacuum adapters		A1340	50 preps	£56	30%	£39.20
		A1470	250 preps	£231	30%	£161.70

Midiprep Plasmid DNA Purification System	Product	Cat. No.	Size	List Price	Discount	Special Offer Price
PureYield [™] Plasmid Midiprep System		A2492	25 preps	£116	30%	£81.20
		A2495	100 preps	£413	30%	£289.10

Maxiprep Plasmid DNA Purification System	Product	Cat. No.	Size	List Price	Discount	Special Offer Price
PureYield [™] Plasmid Maxiprep System		A2392	10 preps	£101	30%	£70.70
		A2393	25 preps	£237	30%	£165.90

Gel and PCR Clean Up System	Product	Cat. No.	Size	List Price	Discount	Special Offer Price
Wizard [®] Plus SV Gel and PCR Clean Up System		A9281	50 preps	£56	30%	£39.20
		A9282	250 preps	£251	30%	£175.70

Genomic DNA Purification System	Product	Cat. No.	Size	List Price	Discount	Special Offer Price
Wizard [®] SV Genomic DNA Purification		A2360	50 preps	£67	30%	£46.90
		A2361	250 preps	£280	30%	£196.00

Total RNA Isolation System	Product	Cat. No.	Size	List Price	Discount	Special Offer Price
SV Total RNA Isolation System		Z3101	10 preps	£46	30%	£32.20
		Z3100	50 preps	£159	30%	£111.30
		Z3105	250 preps	£631	30%	£441.70

Midiprep RNA Purification System	Product	Cat. No.	Size	List Price	Discount	Special Offer Price
PureYield [™] RNA midiprep System		Z3740	10 preps	£72	40%	£43.20
		Z3741	50 preps	£304	40%	£182.40

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Did you know?

The fingerprints of koala bears are virtually indistinguishable from those of humans, so much so that they could be confused at a crime scene.



To order any of the above products and receive your discount, please quote promotional code **SM-1000-MAY07**. Offer valid to 31st July.

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