

Testing Times for Legionella



page 2

Pro-Cult® - Quality Guaranteed



page 3

Prolex® New and Blue



page 4

Automated Staining – A future for consistency and quality.

Pro-Lab Diagnostics is recognised for their extensive range of concentrated and ready to use stains for Microbiology, manufactured in our own purpose designed facilities to the highest possible standards and in accordance with all required regulatory compliances. As laboratory workloads increase for our customers, with an increased emphasis on rapid, reliable and consistent results, any form of automation can offer advantages.



Pro-Lab Diagnostics is therefore pleased to introduce the POLY STAINER, the latest innovation in automatic staining from IUL Instruments.

POLY STAINER offers convenience, reliability, and consistency for Gram Staining, TB Staining, and several other staining procedures.

- Simple to operate with 10 programmable cycles.
- High input - up to 20 slides for each cycle.
- Full technical and service support available.
- Easy to clean.
- Integral drying chamber.
- Integral continual flow wash section.
- Cost effective.

POLY STAINER is available for demonstrations or evaluation, for full technical details and to discuss the POLY STAINER further, please contact the sales coordination desk on Tel - 0151 353 1613, Fax - 0151 353 1614, email - stainconnection@pro-lab.com.

Robert Rae

CEO-Pro-Lab Group of Companies



Welcome to the spring edition of "The Pulse". As you will see from the enclosed, Pro-Lab Diagnostics has once again moved forward with the edition of new products, and extended facilities. Our commitment continues to grow in offering high quality innovative diagnostic products, as does our commitment to you the customer who deserves the highest possible sales and technical service and support. Our highly trained, skilled technical staff remain at your service (support@pro-lab.com). Please do not hesitate to contact us at any time, with whatever question you may have.

Testoxidase

Oxidase testing is carried out in all microbiology laboratories for the routine detection of Bacterial Cytochrome Oxidase. The oxidase test is a simple differential test used in the initial identification of a number of bacteria.

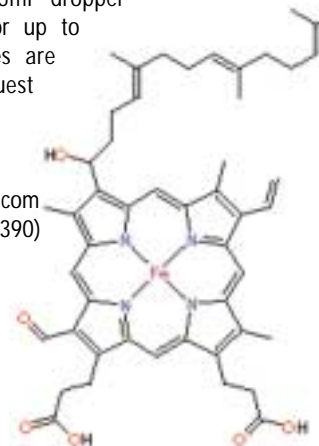
Traditional testing is carried out by preparing fresh solutions of NNN,N-tetramethyl-p-phenylenediamine on a daily basis in the laboratory. This reagent could then be used throughout the day, a positive reaction being indicated by the formation of a deep purple colouration where a colony comes into contact with the reagent.

The disadvantages of this method include the absence of required quality control, the reagent is not IVD compliant, the hazards associated with the handling of the compound in powdered form, and the solution effectively expires within 24 hours of preparation.

Testoxidase, manufactured by Pro-Lab Diagnostics provides a convenient, qualitative, cost effective, ready to use reagent for Cytochrome Oxidase Testing. Testoxidase is based upon the oxidation of

NNN,N-tetramethyl-p-phenylenediamine by bacterial cytochrome in the presence of atmospheric oxygen to form the purple coloured compound known as Wurster's Blue.

Testoxidase is adaptable to all traditional methods including the use of filter paper strips, discs, swab tips and plate flooding. It is stored at "room temperature" allowing for the reagent to be readily available at all times on the bench, and is stable for "9 Months" from date of manufacture. Supplied in a 15ml dropper bottle, allowing for up to 350 tests, samples are available on request from sales coordination, contact uksupport@pro-lab.com (Testoxidase REF PL390)



Structure of Cytochrome C shown

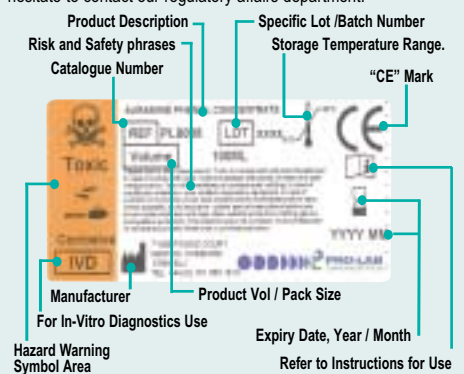
An update from the quality team.

Pro-Lab Diagnostics continues its' dedication to achieving the highest possible standards of product performance and service to all of its' customers on a world wide basis. We are pleased to advise that all members of the Pro-lab group are now registered under the guidelines of ISO9001:2004, and also the latest requirement of ISO13485, an achievement that we are all proud of.

By now, you will be familiar with the presence of the CE mark on over 1000 products manufactured and supplied by Pro-Lab Diagnostics in accordance with the In Vitro Diagnostics Directive published by the European Union. Changes will have been seen in the labelling of products and also in the format of the IFU (instructions for use), provided with all products. The supply of essential material safety data information, is also now supplied in the new required format. An example is shown below for Microbiology stains, with interpretation of the standard symbols.

Pro-Lab Diagnostics are proud to provide CE labelled products to our customers. Our willingness to proactively invest in this capability is one more reason customers turn first to Pro-Lab Diagnostics as a primary manufacturer and supplier of products for microbiology.

Should you have any questions, or require any guidance in relation to any of the above quality standards and issues, please do not hesitate to contact our regulatory affairs department.



Testing Times for Legionella



is extremely important. The most widely available techniques used for laboratory confirmation of legionella isolates are serological methods based on hyperimmune rabbit antisera containing antibodies directed against the somatic lipopolysaccharide or "O" antigen. However, many legionella species and serogroups have antigens in common and cross reactions can be seen when polyclonal antibodies are used for serological identification.

The Prolex® Legionella pneumophila serogroup 1 latex agglutination kit, utilizes monoclonal antibody coated latex particles which offers the highest sensitivity and specificity for the identification of Legionella pneumophila serogroup 1, directly from primary culture.

The kit consists of a buffered suspension of latex particles coated with the monoclonal antibody specifically directed against surface antigens on Legionella pneumophila serogroup 1, that will bind through its single reactive site to the sensitised latex. The mixture will cause a rapid agglutination that is clearly visible.

Presented in a convenient 20 test size kit with positive and negative control reagents, the Prolex® Legionella pneumophila serogroup 1 latex agglutination kit is an essential tool for the rapid, accurate and specific identification of Legionella pneumophila serogroup 1. (Ref PL226).



The first discovery of bacteria from the genus Legionella came at an American Legion convention in 1976 when an outbreak of pneumonia led to 29 deaths. The causative agent, that would come to be known as Legionella pneumophila, was isolated and given its own genus.

Legionella pneumophila is a motile, rod-shaped, gram-negative, aerobic, bacterium. It is considered to be a "facultative parasite," which in the last twenty years has been identified as the leading cause of Legionnaire's Disease. Of more than 40 species of Legionella, L. pneumophila is the major pathogen, and is the most commonly encountered member of the group in the clinical laboratory.

Following its isolation on media containing cysteine, yeast extract, α -ketoglutarate, and iron (BCYE) or selective BCYE (or other medium-containing antibiotics), typical colonies are grey-white to blue-green growing after up to five days incubation at 37°C.

The rapid, accurate identification of Legionella pneumophila, in particular Legionella pneumophila serogroup 1,

EM - L. Pneumophila Serogroup 1

In addition to the Monoclonal Latex kit, Pro-Lab Diagnostics also manufactures an extensive range of kits and reagents in latex and direct fluorescent antibody format for the detection and identification of all serogroups of Legionella pneumophila and several non-pneumophila species. For full details of how the products can be suited to your own needs please contact the technical sales department.

Visit Our Website
www.pro-lab.com

Exhibition Update

Pro-Lab Diagnostics will be supporting the following scientific meetings in the very near future. Further details can be obtained from our customer support desk on 0151 353 1613, fax 0151 353 1614, or uksupport@pro-lab.com/exhibitions.



Wessex Applied Microbiologists Meeting.
April 15th - 17th 2005. Southampton Novotel, UK.
www.wam2005.org



CACMID Canadian Association for Clinical Microbiology and Infectious Diseases, Ottawa, Canada. April 17th 2005.
www.cacmid.ca



British Society of Microbial Technology Annual Scientific meeting. 20th May 2005, Colindale, UK. www.bsmt.org.uk



CSMLS Canadian Society of Medical Laboratory Science. Moncton, Canada. May 28th - June 1st 2005.



105th Meeting. American Society of Microbiology. June 5th - 9th 2005. Atlanta, USA.



SWACM South West Association of Clinical Microbiology. Annual Conference. September 7th - 10th 2005. Tulsa, Oklahoma, USA.



Institute of Biomedical Sciences Congress. September 26th - 28th 2005. International Convention Centre Birmingham, UK.



SEACM South Eastern Association of Clinical Microbiologists. Annual Conference November 4th - 11th 2005. San Diego, California, USA, www.seacm.org



ECCMID 15th Annual Conference of Clinical Microbiology. Copenhagen, Denmark.

Pro-Cult® - Quality Guaranteed



Pro-Cult® discs are designed to provide microbiologists with a simple, reliable, and high quality guaranteed first generation source of bacterial cultures that can be adapted for use in virtually any microbiological test method.

Each Pro-Cult® disc is a freeze dried presentation of approximately 10^6 - 10^9 viable organisms. Unlike many other cultures derived from recognised culture collections, each lot number of Pro-Cult® is guaranteed as "First Generation" directly traceable to its source.

Strains for production of Pro-Cult® discs are taken from recognised national collections : ATCC, NCTC or CIP depending on the strain required. The original freeze dried culture is initially grown on appropriate culture media and then suspended in a special solution. This solution is then dispensed as drops and frozen without delay, when frozen, the freeze drying process can begin.

This of course sounds very simple, and in practice it is not, full details of the exact production process being naturally of a proprietary nature to the manufacturer.

The resulting Pro-Cult® discs can then be reconstituted in liquid media or placed directly onto the solid media. As the discs are extremely hygroscopic, moisture is absorbed from the solid media and the discs become spreadable within a few minutes to give an instant inoculum. This method is particularly recommended for fastidious organisms. All quality control testing used to guarantee the performance of Pro-Cult® is UKAS accredited.

Supplied in units of 10 discs with an expiry date up to 12 months from date of manufacture depending on the strain. The extensive range available includes all requirements for BSAC (British Society of Antimicrobial Chemotherapy)

Recommended BSAC Strains Available as Pro-Cult®

Strain	Reference	Pro-Cult® Reference
Escherichia coli or Escherichia coli	NCTC 12241/ATCC 25922 NCTC 10418/ATCC 10536	PLD02 PLD33
Escherichia coli*	NCTC 11560	PLD63
Staphylococcus aureus or Staphylococcus aureus	NCTC 12981/ATCC 25923 NCTC 6571/ATCC 9144	PLD13 PLD95
Staphylococcus aureus**	NCTC 12493	PLD64
Pseudomonas aeruginosa or Pseudomonas aeruginosa	NCTC 12934/ATCC 27853 NCTC 10662/ATCC 25668	PLD10 PLD65
Enterococcus faecalis***	NCTC 12697/ATCC 29212	PLD18
Haemophilus influenzae **** or Haemophilus influenzae	NCTC 12699/ATCC 49247 NCTC 11931	PLD81 PLD98
Streptococcus pneumoniae	NCTC 12977/ATCC 49619	PLD95
Neisseria gonorrhoeae	NCTC 12700/ATCC 49226	PLD96

* β -Lactamase Producing Strain.

** Methicillin / Oxacillin / cefoxitin Resistant Strain.

*** Vancomycin Resistant Strain

**** Resistant to β -Lactam Antibiotics.

The BSAC Organisms are available as a set from Pro-Lab Diagnostics (REF PLD100), please remember to advise your choice of recommended alternatives when ordering.

Pro-Cult® Applications.

To control staining reactions.
Quality control of culture media.

Control of biochemical reactions used in the identification of micro-organisms.

Controlling the accuracy of methods and materials used in the determination of antibiotic susceptibility of bacteria of either the disc diffusion or the serial dilution techniques. (Ref BSAC).

Pro-Cult® discs contain organisms of known antibiotic susceptibility and may be used to determine the concentration of antibiotics in blood, CSF, sera and other body fluids.

Reliable - Easy to store - Adaptable
- Directly Traceable to Source -
Guaranteed First Generation -
Exclusively from Pro-Lab Diagnostics.

Also Available.

ESBL (Extended Spectrum Beta Lactamases)

Klebsiella pneumoniae ATCC 700603

Pro-Cult® reference - PLD 83

ESBLs are enzymes that mediate resistance to extended-spectrum (third generation) cephalosporins (e.g., ceftazidime, cefotaxime, and ceftriaxone) and monobactams (e.g., aztreonam) but do not affect cephamycins (e.g., cefoxitin and cefotetan) or carbapenems (e.g., meropenem or imipenem).

McFarlands 0.5 Standard.

Available from Pro-Lab Diagnostics as a

latex suspension with up to 2 years shelf life from date of manufacture.

Supplied in a protective case with a solid bar chart for reference.

Product Reference -

SD2300.



Special thanks to Julian Beadle, TCS Biosciences, for his valuable contribution to this article.

ATCC is a registered trademark of the American Type Culture Collection



Prolex® New & Blue – Not just the Future, but the Present..

The Prolex® New & Blue Rapid Streptococcal Grouping System, developed by Pro-Lab Diagnostics, has now become recognised throughout the diagnostic market as the clear method of choice in numerous laboratories.

The success of the kit is not only based upon its sensitivity, specificity, performance and reliability...but perhaps also on its BLUE theme !

On the lighter side, consider the following facts about **BLUE.....**

Blue Blood - The phrase "Blue Blooded" describes an aristocratic background because pale, untanned skin allows blue tinged veins to show through. Why, because a tanned skin is associated with manual labour, and the aristocracy would never do any, hence they were pale and "Blue Blooded" ?.



Blue Chip - An investment described as "Blue Chip" denotes wealth and reliability, taken from the blue colour of the high value chip in poker !



The Blues. Since 1616 Blue Devils have been thought to cause depression and sadness, the phrase was shortened in 1741 to "The Blues" to describe that age old melancholy feeling.



Blue Eyes.

Apart from Humans, only one other primate can have blue eyes...The black Lemur



Blue Tinted Spectacles....

Traditionally used for treating insanity, Pink was used for treating depression, hence the expression "Looking at the world through rose tinted spectacles". Yellow glasses were used to treat SYPHILIS ! (The YELLOW - RED - BLUE Extraction procedure in Prolex® Blue perhaps?)

Blue Jeans. A close association between denim and the USA may go back as far as Christopher Columbus. The Portuguese sailor is thought to have used the coarse blue material manufactured in the French city of "de Nimes" for sailcloth in his famous voyage of 1492.



Blue M & M's. First introduced to the confectionary world in 1995 after a customer survey showed blue was far more popular than pink or purple.

The Blue Screen of Death (BSOD).

Traditionally indicates that you computer has crashed, now a feature of every Microsoft Windows operating system since 1992.



Blue City - In 1998, the residents of Sortland in Norway were insulted by local guidebooks that described it as a "rather unappealing town". The local authority invested in 50'000 litres of blue paint, and painted it BLUE.



The Blue Hope Diamond. Reputably one of the most valuable diamonds in the world at 45.52 carats. The diamond is thought to have originally been stolen from the

eye of a statue of the Hindu goddess Sita. Having had many owners, including Luise XIV, the diamond was eventually donated to the Smithsonian Institute in 1958 where it remains on display. Legend has it that almost all owners of the Blue Hope Diamond have been cursed, and suffered strange accidents, some fatal.

Once in a Blue Moon , a Blue Chip product.

Microbank® – Updated Performance Portfolio



An updated version of the Microbank® Reference Performance Portfolio is now available, including updated storage data for many fastidious organisms stored for up to Ten Years! For a complimentary copy of the portfolio please do not hesitate to contact us directly.



Prolex® New & Blue ! - The new concept in Rapid Streptococcal Grouping, offering instant results at room temperature. Samples and demonstrations are available on request, simply contact the sales coordination desk on Tel - 0151 353 1613, Fax - 0151 353 1614, or email prolexblue@pro-lab.com.

Head Office-Canada
20 Mural Street, Unit 4, Richmond Hill,
Ontario
CANADA, L4B 1K3
Toll Free 1-800-268-2341
Tel: 905-731-0300 Fax: 905-731-0206
support@pro-lab.com

United Kingdom Office
7 Westwood Court, Neston, South Wirral
Cheshire, UK, CH64 3UJ
Tel: 0151-353-1613
Fax: 0151-353-1614
uksupport@pro-lab.com

United States Office
9701 Dessau Road, Unit 802, Austin, TX,
78754
Toll Free 1-800-522-7740
Tel: 512-832-9145
Fax: 1-800-332-0450
ussupport@pro-lab.com