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ศูนย์วิจัยทรัพยากร  
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APPENDIX



Glassware

1. 250 mL Measuring cylinders
2. 0.1, 1, 2, 5, and 10 mL pipettes
3. 50, 125, 250, and 500 mL beakers
4. 100 mL conical flasks
5. 10x75 mm. tubes
6. 16x150 mm. screw-cap tubes
7. 100x15 mm. petri dishes
8. 50 mL vials

Plasticware

1. 500 mL polypropylene centrifuge bottles
2. 50 mL polycarbonate centrifuge tubes
3. 50 mL polypropylene centrifuge tubes
4. 1 mL polycarbonate centrifuge tubes
5. 1 mL disposable syringes
6. 50 uL micropipette tips
7. Magnetic bars

ReagentsColox-lypon F mixture

- |            |        |
|------------|--------|
| 1. Colox   | 100 mL |
| 2. Lypon F | 100 mL |

Mix the two solution together and store at room temperature for further use in washing of glassware and plasticware.

Water for Injection

It was obtained from Queen Soavabha Memorial Institute, Thai Red Cross Society, Bangkok, Thailand. It was prepared according to U.S.P. specification.

10x 5mM Tris-HCl buffer

- |                           |          |
|---------------------------|----------|
| 1. Trizma (Sigma)         | 6.06 g.  |
| 2. water for injection to | 1,000 mL |

2.5 N HCl was used to adjust pH to 7.4 and the buffer was tested with commercial LAL test before diluted to 5 mM Tris buffer using water for injection.

5 mM Tris-HCl buffer

- |                           |          |
|---------------------------|----------|
| 1. 50 mM Tris-HCl buffer  | 100 mL   |
| 2. water for injection to | 1,000 mL |

1 M Magnesium Chloride solution

- |  |           |
|--|-----------|
| 1. MgCl <sub>2</sub> . 6H <sub>2</sub> O (Fluka) | 20.331 g. |
| 2. water for injection to                        | 100 mL    |

The solution was prepared by dissolving magnesium chloride completely using magnetic stirrer. The solution was tested with commercial LAL test prior to use.

0.125% EDTA 3% NaCl in 5 mM Tris buffer

1. EDTA.2H<sub>2</sub>O (E. Merck) 1.25 g.
2. NaCl (E. Merck) 30 g.
3. 5 mM Tris-HCl buffer to 1,000 mL

Dissolved EDTA and NaCl in Tris buffer using magnetic stirrer. The solution was tested with commercial LAL.

0.05 M EDTA 3% NaCl in 5 mM Tris buffer

1. EDTA.2H<sub>2</sub>O (E. Merck) 18.61 g.
2. NaCl (E. Merck) 30 g.
3. 5 mM Tris-HCl buffer to 1,000 mL

Dissolved EDTA and NaCl in Tris buffer using magnetic stirrer. The solution was tested with commercial LAL.

0.025 M EDTA 3% NaCl in 5 mM Tris buffer

1. EDTA.2H<sub>2</sub>O (E. Merck) 9.31 g.
2. NaCl (E. Merck) 30 g.
3. 5 mM Tris-HCl buffer to 1,000 mL

Dissolved EDTA and NaCl in Tris buffer using magnetic stirrer. The solution was tested with commercial LAL.

0.25 M EDTA 3% NaCl solution

1. EDTA.2H<sub>2</sub>O (E. Merck) 93.06 g.





2. 3% NaCl solution to 1,000 mL

Dissolved EDTA in 3% sodium chloride solution with the help of magnetic stirrer and tested with commercial LAL.

#### 0.025 M EDTA 3% NaCl solution

1. 0.25 M EDTA 3% NaCl solution 100 mL
2. 3% NaCl solution to 1,000 mL

Mixed the solution by shaking thoroughly for at least 5 minutes.

#### 3% Sodium Chloride solution

1. Sodium Chloride (E. Merck) 21 g.
2. Normal Saline Solution to 1,000 mL

The solution was shaken continuously until NaCl was completely dissolved. The solution was kept at room temperature. The solution was tested with commercial LAL before use.

#### 3% sodium chloride in 5 mM Tris buffer

1. NaCl (E. Merck) 30 g.
2. 5 mM Tris buffer to 1,000 mL

The solution was shaken continuously until NaCl was completely dissolved. The solution was kept at room temperature. The solution was tested with commercial LAL before use.

#### 2.5 N HCl solution

1. 25% HCl (E. Merck) 36.3 mL
2. water for injection to 100 mL

Shaked the mixture well at least 5 minutes and tested with commercial LAL.

0.1 N HCl solution

1. 25% HCl (E. Merck) 1.5 mL
2. water for injection to 100 mL

Shaked the mixture well at least 5 minutes and tested with commercial LAL.

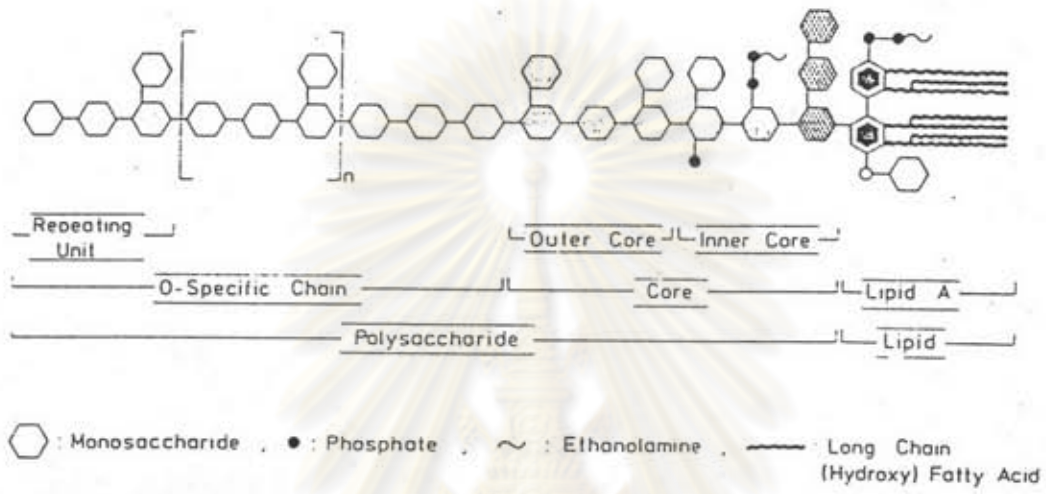
0.1 N NaOH solution

1. NaOH, pellets (E. Merck) 0.40 g.
2. water for injection to 100 mL

Dissolved NaOH completely by gently shaking with water for injection and tested with commercial LAL.

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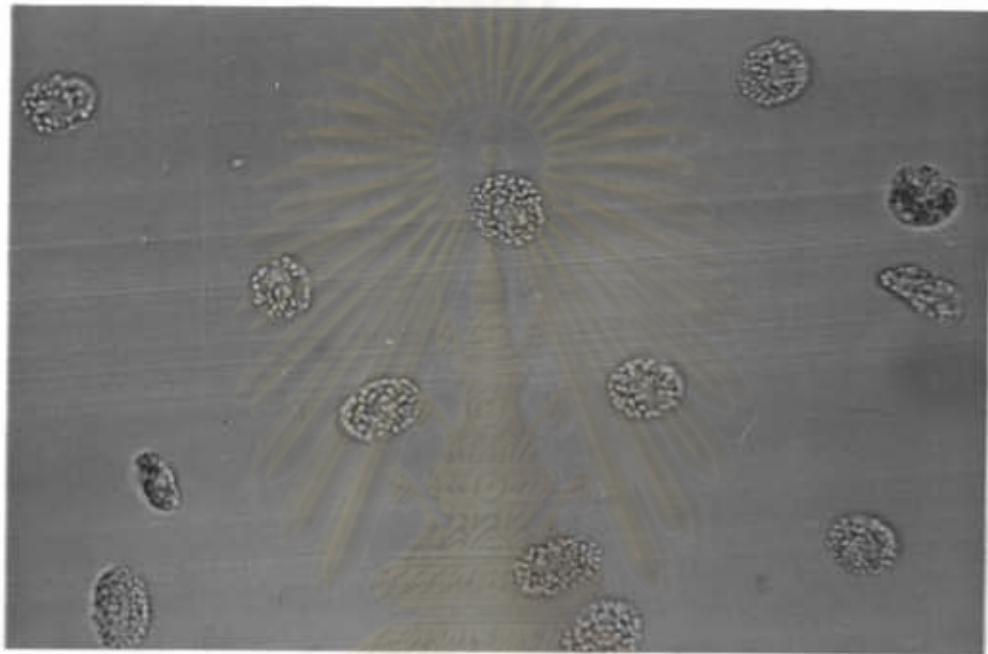
Schematic diagram of LPS.



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Amoebocyte under microscope (400x)



ศูนย์วิทยุทรัพยากร  
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## BIOGRAPHY

Mr. Por Punyaratabandhu was born on June 30, 1955 in Prachiburi, Thailand. He graduated with a Bachelor of Pharmacy from the Department of Pharmaceutical Science at Saugor University, Saugor (M.P.), India in 1980. At present, he holds a post of Pharmacist-in-Charge of Vaccine Section at Queen Soavabha Memorial Institute, Thai Red Cross Society, Bangkok, Thailand.



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