

References

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APPENDIX A

BUFFERS AND REAGENT

1. Lysis Buffer I

Sucrose	109.54	g
1.0 M Tris-HCl	10	ml
1.0 M MgCl ₂	5	ml
Triton X-100	10	ml
Distilled water to	1,000	ml

Sterilize the solution by autoclaving and store at 4°C

2. Lysis Buffer II

5.0 M NaCl	10	ml
0.5 M EDTA (pH 8.0)	48	ml
Distilled water to	1,000	ml

Sterilize the solution by autoclaving and store at room temperature.

3. 10% SDS solution

Sodium dodecyl sulfate	10	g
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Distilled water to 100 ml

Mix the solution and store at room temperature.

4. 20 mg/ml Proteinase K

Proteinase K 2 mg

Distilled water 1 ml

Mix the solution and store at -20°C

5. 1.0 M Tris-HCl

Tris base 12.11 g

Dissolve in distilled water and adjusted pH to 7.5 with HCl

Distilled water to 100 ml

6. 0.5 M EDTA (pH 8.0)

Disodium ethylenediamine tetraacetate.2H₂O 186.6 g

Dissolve in distilled water and adjusted pH to 8.0 with NaOH

Distilled water to 1,000 ml

Sterilize the solution by autoclaving and store at room temperature.

7. 1.0 M MgCl₂

Magnesium chloride.6 H ₂ O	20.33	g
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Distilled water to	100	ml
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Dispense the solution into aliquots and sterilize by autoclaving.

8. 5 M NaCl

Sodium chloride	29.25	g
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Distilled water to	100	ml
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Dispense the solution into aliquots and sterilize by autoclaving.

9. 10X Tris borate buffer (10X TBE)

Tris base	100	g
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Boric acid	55	g
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0.5 M EDTA (pH 8.0)	40	ml
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Adjust volume to 1,000 ml with distilled water. The solution was mixed and stored at room temperature.

10. 7.5 Ammonium acetate

Ammonium acetate	57.81	g
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Distilled water	80	ml
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Adjust volume to 100 ml with distilled water and sterilize by autoclaving.

11. 6X loading dye

Bromphenol blue	0.25	g
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Xylene Cyanol	0.25	g
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Glycerol	50	ml
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1M Tris (pH 8.0)	40	ml
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Distilled water to	100	ml
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Mix and stored at 4°C

11. 1% agarose gel (w/v)

Agarose	1.0	g
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1x TBE	100	ml
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Dissolve by heating and occasional mix until no granules of agarose gel are visible.

12. 2% agarose gel (w/v)

Agarose	2.0	g
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1x TBE	100	ml
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Dissolve by heating and occasional mix until no granules of agarose gel are visible.

14. Ethidium Bromide

Ethidium Bromide	10	mg
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Distilled water	1	ml
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Mix the solution and store at 4°C

BIBLIOGRAPHY

Mr. Thanyapat Wanitchanon was born in Songkhla in April 8th, 1980. In 2002, he received his bachelor degree in Microbiology from Faculty of Science, Prince of Songkhla University. Consequently, he started to work at Rajanukul institute which inspired the need to study further in the field of medical science, especially molecular biology. Then he made a decision to study in curriculum of Medical Science in the Faculty of Medicine for his master degree. In 2006, he received his master degree in Medical science from Faculty of Medicine, Chulalongkorn University.

