

**APPENDIX**

ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่

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## APPENDIX A

### REAGENTS AND BUFFERS PREPARATION

#### 1. Commonly used stock solutions

##### 1 M Tris-HCl (pH 8.0)

Tris base 121.1 g

- Dissolve in 800 ml distilled water
- Adjust the pH to 8.0 by adding concentrated HCl
- Adjust the volume to 1 liter with distilled water
- Sterilize by autoclaving and store at room temperature

##### 0.5 M EDTA (pH 8.0)

Disodium Ethylenediaminetetra acetate·2H<sub>2</sub>O 186.1 g

- Dissolve in 800 ml distilled water
- Adjust the pH to 8.0 by adding NaOH
- Adjust the volume to 1 liter with distilled water
- Sterilize by autoclaving and store at room temperature

##### 10 % SDS

Sodium dodecyl sulfate 1 ml

Distilled water 100 ml

**2. Reagents for Electrophoresis****50X Tris-acetate Buffer (TAE)**

|                     |         |
|---------------------|---------|
| Tris base           | 242 g   |
| Glacial acetic acid | 57.1 ml |
| 0.5 M EDTA (pH 8.0) | 100 ml  |

- Dissolve in 1 liter distilled water
- Sterilize by autoclaving and store at room temperature

**5X Tris-borate Buffer (TBE)**

|                     |        |
|---------------------|--------|
| Tris base           | 54 g   |
| Boric acid          | 27.5 g |
| 0.5 M EDTA (pH 8.0) | 20 ml  |

- Dissolve in 1 liter distilled water
- Sterilize by autoclaving and store at room temperature

**6X gel loading buffer**

|                  |        |
|------------------|--------|
| Bromophenol blue | 0.25 % |
| Glycerol         | 30 %   |

- Mixed thoroughly and keep at -20°C

**10 mg/ml Ethidium bromide**

|                  |     |
|------------------|-----|
| Ethidium bromide | 1 g |
|------------------|-----|

- Dissolve in 100 ml distilled water
- Stir on a magnetic stirrer to ensure that the dye has dissolved
- Wrap the container in aluminum foil and store at room temperature

**1% agarose gel**

|            |        |
|------------|--------|
| LE agarose | 1 g    |
| 0.5X TAE   | 100 ml |

**2% agarose gel**

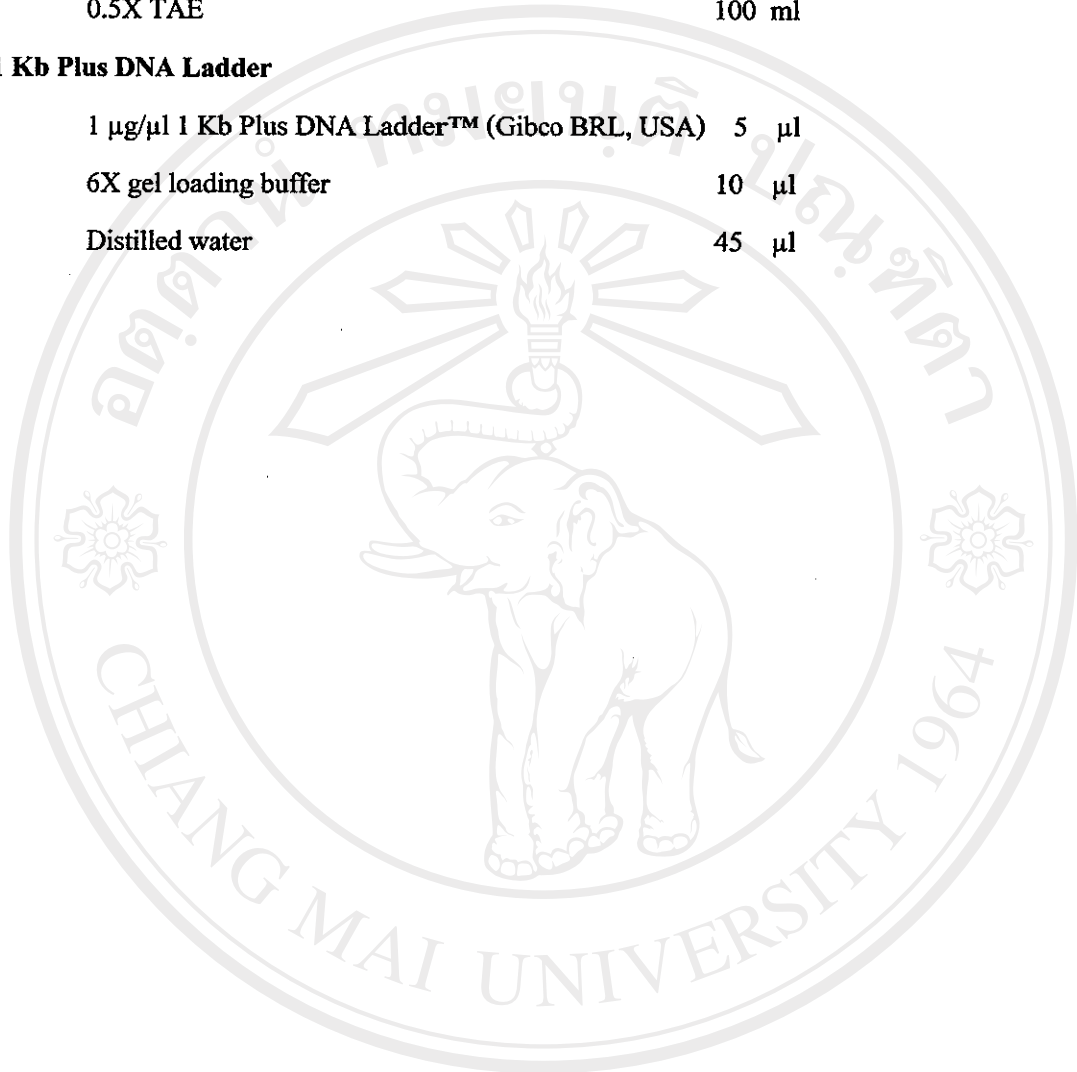
|            |        |
|------------|--------|
| LE agarose | 2 g    |
| 0.5X TAE   | 100 ml |

**3% agarose100 gel**

|             |        |
|-------------|--------|
| Agarose1000 | 3 g    |
| 0.5X TAE    | 100 ml |

**1 Kb Plus DNA Ladder**

|  |       |
|--|-------|
| 1 µg/µl 1 Kb Plus DNA Ladder™ (Gibco BRL, USA) | 5 µl  |
| 6X gel loading buffer                          | 10 µl |
| Distilled water                                | 45 µl |



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**Publications**

Yoshiyama T, Supawitkul S, Kunyanone N, Rienthong D, Yanai H, Abe C, Ishikawa N, Akarasewi P, Payahandana V, Mori T. Prevalence of drug-resistant tuberculosis in on HIV endemic area in northern Thailand. *Int J Tuberc Lung Dis* 2001; 5: 32-39.