

## APPENDIX

### Chemical solution for DNA extraction and electrophoresis

1. SDS extraction buffer for DNA extraction as described by Kuntapanom and Ikeda (1998)

Tris base	1.8171	g
Boric acid	0.9270	g
0.5 M EDTA.2Na	1.00	ml
SDS	2.00	g

The volume was adjusted by distilled water to 50 ml and sterilization.

2. 0.5 M EDTA.2Na (pH8.0) keep at room temperature.

EDTA.2Na	18.612	g
Distilled water	80	ml

The solution was mixed and adjusted pH 8.0 by NaOH, the volume was adjusted by distilled water to 100 ml and sterilization.

3. 5M NaCl

NaCl	2.922	g
Distilled water	10	ml

The solution was sterilized and kept at room temperature.

4. 3M NaOAc (pH 5.2)

NaOAc	2.4609	g
Distilled water	10	ml

The solution was mixed and adjusted pH 5.2 by glacial acetic acid, the solution was sterilized and kept at room temperature.

5. 50XTAE buffer

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

The volume was adjusted by distilled water to 1000 ml and kept at room temperature.

## 6. TE buffer

Tris base	12.114	g
0.5M EDTA.2Na	200	$\mu$ l

The volume was adjusted by distilled water to 100 ml, the solution was sterilized and kept at room temperature.

## 7. Ethidium bromide (keep in dark at 4 °C)

Ethidium bromide	100	ml
Distilled water	10	ml

The solution was kept in the dark bottle with aluminum foil at 4 °C.

## 8. Loading buffer (XB.6X)

Bromophenol blue	0.25%
Xylene cyanol FF	0.25%
Sucrose solution	30%

The solution was mixed together, the volume was adjusted by distilled water, sterilized and kept at 4 °C.