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APPENDICES

APPENDICES

Appendix 1

Preparation of stacking gel and separating (running) gel

*Running gel buffer : 1 M Trizma pre-set crystal , pH8.8

Composition	Running gel (10%)		Stacking gel	
	1 plate	2 plate	1plate	2 plate
30%Acrylamide mix	3.3ml	9.9ml	0.65ml	1.95ml
1M Running gel buffer	3.75ml	11.25ml		
1M Stacking gel buffer			0.625ml	1.875ml
Distilled water	2.75ml	8.25ml	3.28ml	9.84ml
10%SDS	100µl	300µl	50µl	150µl
10%APS	100µl	300µl	37.5µl	112.5µl
TEMED	10µl	30µl	5µl	15µl
Total volume	10ml	30ml	4.6ml	13.9ml

Stacking gel buffer : 1 M Tris-base , pH 6.8

Appendix 2 Tissue processing for ultramicrotome section

Fixed in 3% Glutaraldehyde 4°C

↓

Wash in 0.1 M Cacodylate Buffer pH 7.4 (10 mins*3 times)

↓

Fixed in 1% Osmium tetroxide (OsO_4) (2 hours)

↓

Wash in 0.1 M Cacodylate Buffer pH 7.4 (10 mins*3 times)

↓

Dehydration with graded alcohol

70% alcohol (10 mins*2 times) Overnight

80% alcohol (10 mins*2 times)

95% alcohol (10 mins*2 times)

100% alcohol (15 mins*3imes)

↓

Propylene oxide (15 mins*2 times)

↓

Infiltrate with Propylene oxide: Epoxy resin

1:1 (1 hour)

1:2 (12-18 hours)

↓

Infiltrate with 100% Epoxy resin (1-2 hours)

↓

Embeded in block capsule (incubate at 60 °C 2-3 days)

Appendix 3 Solutions and dyes used in the tissue processing

0.1 M Cacodylate buffer

Sodium cacodylate 21.4 g., Trihydrate MW. = 214.02
Cacodylate acid
dH_2O 986 ml.
0.2 M HCl 14 ml.

3% Glutaraldehyde

30% glutaraldehyde 20 ml.
0.1 M cacodylate buffer 230 ml.

1% Osmium

Osmium tetroxide 1 g.
0.1 M cacodylate buffer 100 ml.

1% para-phenylenediamine

Sodium borate 5 g.
Distilled water 500 ml.: 1% sodium borate
Methylene blue 5 g.
1% sodium borate 500 ml.

Lead citrate

1 g Lead Citrate
100 ml freshly distilled water
0.4g NaOH per 1 ml

Toluidine blue

Sodium borate 5 g.
Distilled water 500 ml
Toluidine blue 5g
Azure II 5 g

Appendix 4 Substrate solution for immunological detection in Western blot analysis

To 20 ml of distilled water,add 8 drops of buffer stock(pH 7.5) solution and mix well

Add 16 drops of DAB Stock Solution and mix well

Add 8 drops of the Hydrogen Peroxide Solution and mix well

If a gray-black stain is desired, add 8 drops of the Nickel Solution and mix well

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