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APPENDIX

APPENDIX A

The body weigh of juvenile *of P.monodon* female used for serotonin (5-HT) treatment.

No. Tank	Weigh of shrimp (grams)											
	1	2	3	4	5	6	7	8	9	10	11	12
1	33.9	26.4	32.7	27.4	43.9	27.3	35.0	25.7	30.0	25.7	35.0	22.7
2	35.0	25.0	30.5	28.0	41.3	29.8	34.8	23.7	36.3	29.7	41.4	20.4
3	31.9	24.8	34.9	26.0	44.3	27.1	31.6	23.7	32.5	26.1	42.7	21.8
4	33.3	23.4	30.4	25.2	40.3	26.4	30.0	26.9	32.3	23.5	37.0	21.5
5	33.3	21.8	32.0	27.7	43.1	25.8	34.1	27.1	33.9	29.0	38.0	21.1
6	30.6	21.2	32.4	26.0	45.1	22.2	31.7	21.6	31.2	20.5	27.7	23.0
7	35.2	27.7	30.1	21.1	36.6	-	36.6	22.8	30.0	21.0	27.6	21.4
8	33.2	28.7	31.4	23.2	32.4	-	32.4	20.9	30.1	24.0	27.0	21.0

APPENDIX B

Gonadosomatic index (GSI) of *P.monodon* bloodstock.

No.	Name	GSI	Name	GSI
1	RLOV 13	0.65	RLTT	0.516
2	RLOV 8	0.87	RLTT	0.518
3	RLOV 12	0.92	RLTT	0.543
4	RLOV 7	1.10	RLTT	0.586
5	RLOV 4	1.43	RLTT	0.605
6	RLOV 6	1.90	RLTT	0.614
7	RLOV 3	2.02	RLTT	0.665
8	RLOV 8	2.13	RLTT	0.666
9	RLOV 11	2.40	RLTT	0.775
10	RLOV 5	3.02	RLTT	0.778
11	RLOV 9	4.70	RLTT	0.844
12	RLOV 1	5.69	RLTT	0.956

Appendix C

Chemicals for Preparation of Polyacrylamide Gels and Silver Staining

1. 4.5% Denaturing acrylamide solution, 500 ml

Acrylamide	21.375	g
Bis-aclylamide	1.125	g.
7 M urea	210	g.

2. 40% acrylamide solution (crosslink = 37.5:1), 500 ml

Acrylamide	194.80	g.
Bis-aclylamide	5.19	g.

3. 40% acrylamide solution (crosslink = 75:1), 200 ml

Acrylamide	78.94	g.
Bis – aclylamide	1.052	g.

4. Bind silane

95% Ethanol	995	µl
Bind silane	4	µl
Acetic acid	5	µl

5. Fix/stop solution (10% glacial acetic acid), 2 liters

Glacial acetic acid	200	ml
Ultrapure or deionized water	1800	ml

6. Staining solution, 1.5 liters

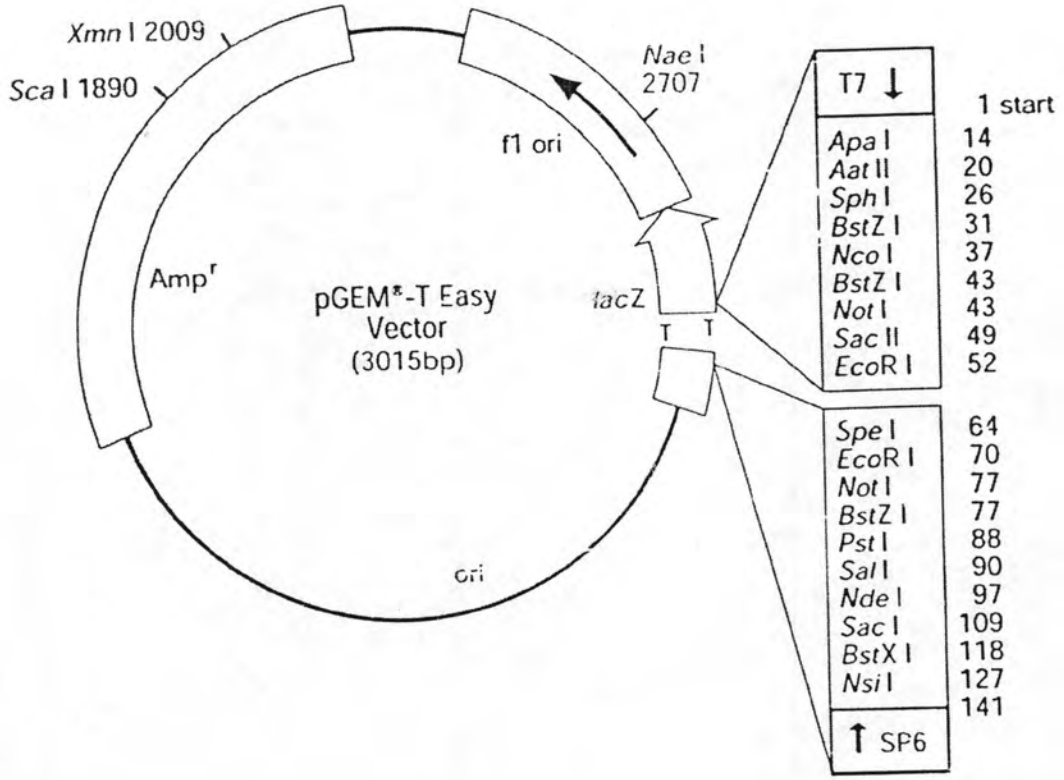
$AgNO_3$	1.5	g.
37% Formaldehyde	2.25	ml

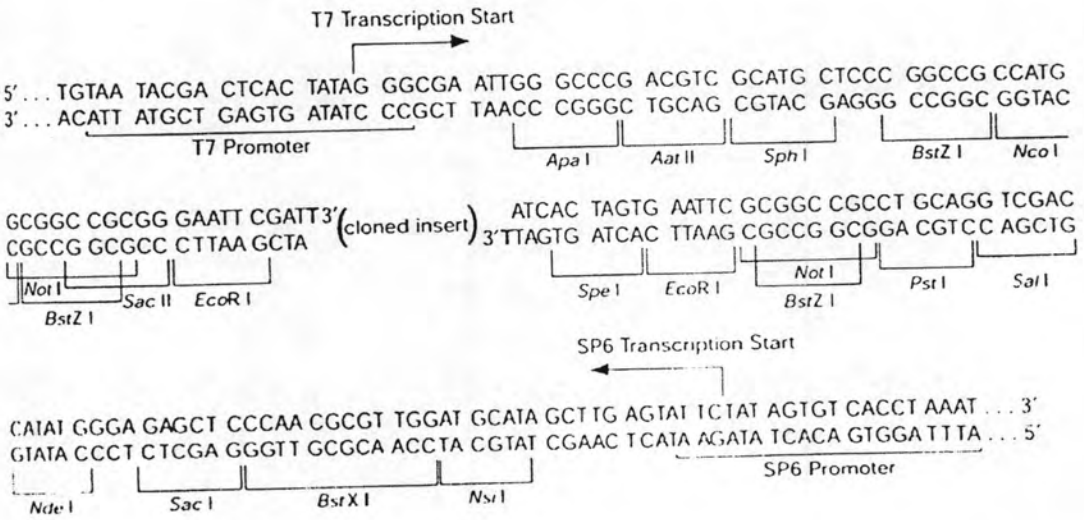
7. Developing solution, 3 liters

Na_2CO_3	90	g.
37% Formaldehyde	5	ml
Sodium Thiosulfate (10mg/ml)	600	µl

Appendix D

Restriction mapping of pGEM® T-easy Vector





BIOGRAPHY

Miss Kanchana Sittikhankeaw was born on Macrh 6, 1981 in Chaingrai. She graduated with the degree of Bachelor of Science from the Department of Biotechnology, Ramkhamhaeng University in 2003. She has enrolled a Master degree program at the Program in Biotechnology, Chulalongkorn University since 2004.

Publications related with this thesis

1. Leelatanawit, R., **Sittikankeaw, K.**, Pasertluk, S., Thamniemdee, N., Klinbunga, S., Tassanakajon, A.and Menasveta (2005). Expressed Sequence Tag (EST) Analysis of Genes Expressed in Ovaries, Testes and Heart of the Giant Tiger Shrimp (*Penaeus monodon*). International Shrimp Symposium, BIOTHAILAND 2005, 2-5 November 2005, Bangkok, Thailand (Oral presentation).

2. **Sittikankeaw, K.**, Prasertlux, S., Thumtungtanakit, S., Klinbunga, S. and Menasveta, P. (2005). Identification of sex-specific expressed genes and their single nucleotide polymorphism (SNP) in ovaries of the giant tiger shrimp *Penaeus monodon.* 31st Congress on Science and Technology of Thailand, 18–20 October 2005, Nakornratchasrima, Thailand (Oral presentation).

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