

APPENDIX

Calculation of percentage of calories

From fat :

$$\frac{[(\text{g of Fat}) / (\text{total calories}) \times 9] \times 100}{}$$

From carbohydrates :

$$\frac{[(\text{g of Carbohydrates}) / (\text{total calories}) \times 4] \times 100}{}$$

Composition of the diets

Lard	1 g	=	9 cal
Lard	1 cal	=	0.11 g
Sucrose	1 g	=	4 cal
Sucrose	1 cal	=	0.25 g
Pellet chow diet	1 g	=	3,040 cal
Pellet chow diet	1 cal	=	0.00033 g
Pellet chow diet	: Lard : Sucrose		
	25 cal	:	50 cal : 25 cal
	0.008 g	:	5.55 g : 6.25 g
26%	Carbohydrates		
58%	Fat		
3,333 g	Pellet chow diet		
1000 g	Lard		
666 g	Sucrose		
1 g	Bile extract porcine		

4% Paraformaldehyde buffer

100 ml	35-40% Formaldehyde
4 g	NaH ₂ PO ₄ .H ₂ O
6.5 g	Na ₂ HPO ₄ .2H ₂ O
900 ml	Distilled water

Protocol of histological processing

1.30 h	70% Ethanol
1.30 h	80% Ethanol
1.30 h	90% Ethanol
1.30 h	95% Ethanol
1 h	95% Ethanol
45 min	100% Ethanol
45 min	100% Ethanol
30 min	100% Ethanol
1 h	Xylene
45 min	Xylene
1.30 h	Paraffin
1.30 h	Paraffin

Protocol of histological rehydration

3 min	100% Ethanol
3 min	100% Ethanol
3 min	95% Ethanol
3 min	95% Ethanol
2 min	Distill water

Protocol of histological staining in nucleus and nucleolus

2 min	Hematoxylin
7 min	Tap water
3 min	Litium

Protocol of histological staining in cytoplasm

5 min	Tap water
2 min	70% Ethanol
35 sec	Eosin

Protocol of histological dehydration

1 min	95% Ethanol
1 min	95% Ethanol
1 min	100% Ethanol
1 min	100% Ethanol

List of publications publication / presentations

Publication

Promson, N. and Puntheeranurak, S. (2014). *Kaempferia parviflora* extract diminishes hyperglycemia and visceral fat accumulation in mice fed with high fat and high sucrose diet. Journal of Physiological and Biomedical Sciences, 27(1), 13-19.

Oral presentations

Promson, N., Tunsophon, S. and Puntheeranurak, S. Effects of *Kaempferia parviflora* extract to reduce the abnormalities in metabolic syndrome mice induced by high fat and high sucrose diet. The 4th Medical Science Academic Annual Meeting 2013. 25th -27th December 2013, Faculty of Medical Science, Naresuan University, Thailand.

Promson, N., Tunsophon, S. and Puntheeranurak, S. Effects of *Kaempferia parviflora* extract to reduce the abnormalities in metabolic syndrome mice induced by high fat and high sucrose diet. The 2nd Academic Science and Technology Conference (ASTC 2014). 21st March 2014, Miracle Grand Convention Hotel, Bangkok, Thailand, Suppl 2014; p32.

Poster presentation

Promson, N. and Puntheeranurak, S. *Kaempferia parviflora* extract diminishes hyperglycemia and visceral fat accumulation in mice fed with high fat and high sucrose diet. The 43rd Annual Scientific Meeting of the Physiological Society of Thailand, 23rd - 25th April 2014, Pattaya, Chonburi, Thailand, Suppl 2014; p30.