

APPENDICES

APPENDIX A

Solution preparation

The solution used in the extraction

- 0.2 M Na_2HPO_4 for 1100 ml (X)

Weight Na_2HPO_4 for 28.39 g adjust volume with distilled water to 1000 ml.

Weight Na_2HPO_4 for 2.84 g adjust volume with distilled water to 100 ml

- 0.2 M NaH_2PO_4 for 500 ml (Y)

Weight NaH_2PO_4 12 g adjust volume with distilled water to 500 ml

- Stock 0.2 M PBS buffer pH 7.2 (Z) for 500 ml (≥ 300 ml) (36 Na_2HPO_4 : 14 NaH_2PO_4)

Bring X 1080 ml mix together with Y 420 ml

- 0.05 M PBS pH 7.2 containing 150mM NaCl

Bring Z for 125 ml and weigh NaCl 4.38 g mix them, adjust volume with distilled water to 500 ml then adjust pH to 7.2

- 0.1M PBS pH 7.2 containing 150mM NaCl

Bring Z for 250 ml and weigh NaCl 4.38 g mix them, adjust volume with distilled water to 500 ml then adjust pH to 7.2

- 0.15 M PBS pH 7.2 containing 150mM NaCl

Bring Z for 357 ml and weigh NaCl 4.38 g mix them, adjust volume with distilled water to 500 ml then adjust pH to 7.2

The solution used in pH adjusting

- 1 N HCl 25 ml

Bring 37% HCl for 9.85 ml adjust the volume with distilled water to 100 ml

- 1 N NaOH 25 ml

Weight NaOH 4 g, Adjust the volume with distilled water to 100 ml

The solution used in sample dissolving

- Acetate buffer (2 mM buffer pH 4.5, 20 mM CaCl_2 , 10 mM NaCl) 1000 ml

Prepare 500 ml of 0.2 M Sodium acetate by weight Sodium Acetate for 13.61 g adjust the volume with distilled water to 500 ml. Prepare 500 ml of 0.2 M acetic acid

by bringing the acetic acid for 6 ml adjust the volume with distilled water to 500 ml. Pour the 0.2 M Sodium Acetate from the previous into the 0.2 M acetic acid to get the pH 4.5 then get the solution for 100 ml, Add the 0.58 g of NaCl, and 2.22 g of CaCl_2 , and finally adjust the volume with distilled water to 1000 ml.

The solution used in Protein content quantification (Bradford assay)

- 0.15 M NaCl 500 ml

Weight NaCl 4.38 g, Adjust the volume with distilled water to 100 ml

- 1000 $\mu\text{g/ml}$ of BSA solution 100 ml

Weight BSA for 0.1 g adjust the volume with the previous 0.15 M NaCl to 100 ml

- Coomassie blue reagent

Bring 0.05 g of Coomassie blue, 50 ml of methanol, and 100 ml of 85% phosphoric acid, and pour them into distilled water 500 ml. Filtrate the residues off. Finally, add another 300 ml of distilled water. Store in 4 °C.

Solution used in α -amylase inhibition quantification (Bernfeld assay)

- Succinate buffer (15 mM, 20 mM CaCl_2 , and 0.5 M NaCl, pH 5.6); 500 ml

Weight 0.88 g of Succinic acid, 1.11 of CaCl_2 , and 14.61 g of NaCl. Mix them adjust the volume with distilled water to 500 ml and adjust the pH to 5.6

- Porcine pancreatic α -amylase (40 U/ml); 100 ml

Weight 0.27 g of Porcine pancreatic α -amylase adjust the volume to 100 ml with the previous Succinate buffer.

- 6.7 mmol/L NaCl 250 ml

Weight NaCl for 0.1 g adjust the volume with distilled water to 250 ml (Z)

- 0.2 M Na_2HPO_4 100 ml (ZX)

Weight Na_2HPO_4 2.84 g adjust the volume with Z to 100 ml

- 0.2 M NaH_2PO_4 100 ml (ZY)

Weight NaH_2PO_4 2.4 g adjust the volume with Z to 100 ml

- 20 mmol/L sodium phosphate buffer containing 6.7 mmol/L NaCl, pH 6.9; 100 ml (ZXY)

Mix 55 ml of ZX and 45 ml of ZY 45 ml adjust the volume with distilled water to 100 ml adjust the pH to 6.9

- Soluble starch 2%(w/v); 100 ml

Weight Soluble starch for 2 g mixed with ZXY 100 ml

- DNS solution 100 ml

Weight 1 g of DNS, 30 g of sodium potassium tartrate, and 40 ml of 1 M NaOH 40 ml adjust the volume with distilled water to 100 ml

- Maltose stock solution (10 mg/ml); 25 ml

Weight maltose for 0.25 g adjust the volume with ZXY to 25 ml

APPENDIX B

Standard curves

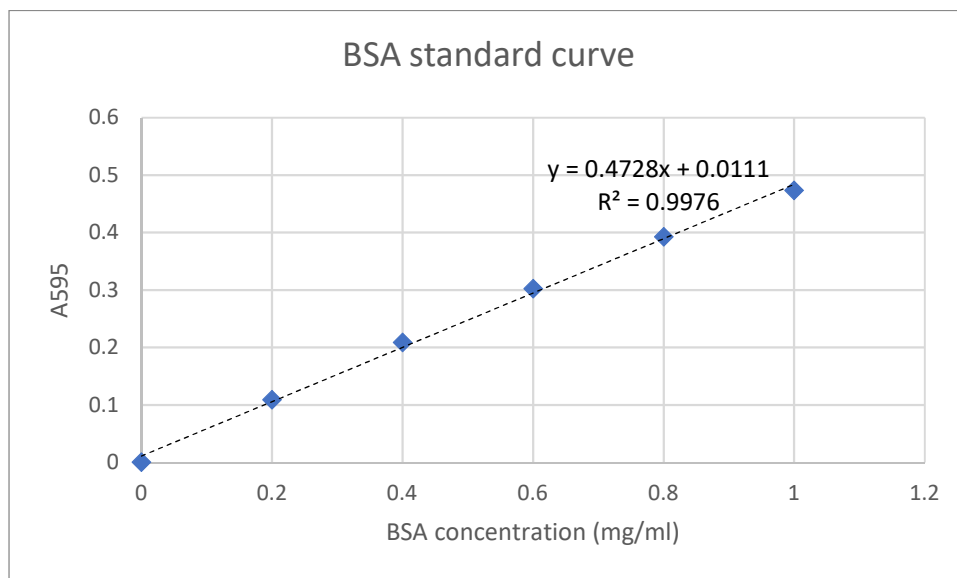


Figure B.1 BSA standard curve

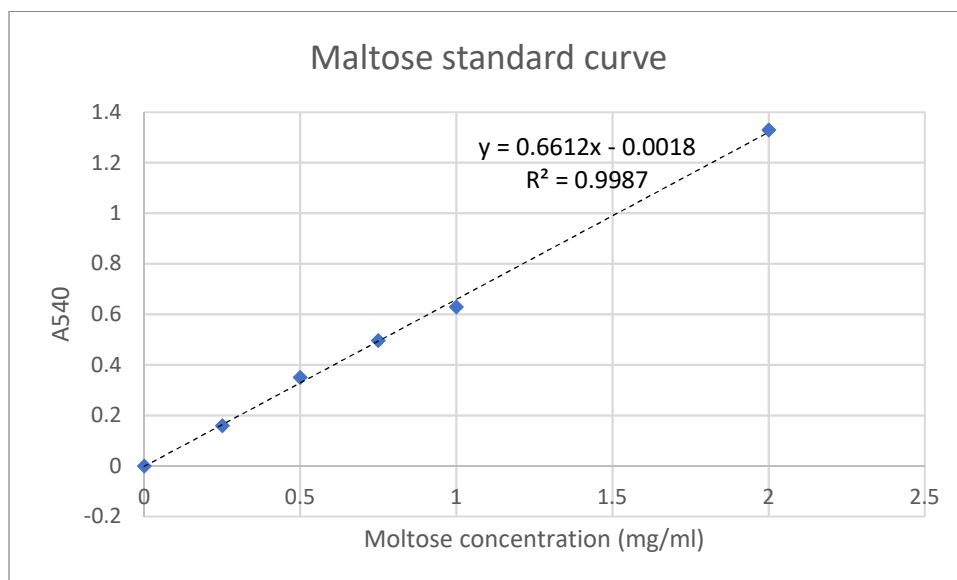


Figure B.2 Maltose standard curve

APPENDIX C

Diet energy and rats water intake

Table C.1 Products energy

Products	Attribute	Energy (kcal/g)
Lay's	salty	5.3
Lay's Stax	salty	5.2
Twistko	salty	4.7
Poo Thai	salty	5.4
Cornae	salty	5.8
Hanami	salty	5
Dino park	salty	5.3
Elle brand layer vanilla flavoured cake with white cream	sweaty	4.7
Imperial cookies vanilla ring	sweaty	5.2
Sando creamy vanilla	sweaty	5.4
Fun-o sandwich cookies filled with milk cream	sweaty	4.8
Tivoli Twin milk flavoured	sweaty	5
Crispy waters filled with milk cream	sweaty	5
Voiz Cracker Creamy Butter	sweaty	5
Rosy sandwich crackers cheese	salty/sweaty	5.3
Rosy crackers original	salty/sweaty	5
CP Smoked Sausage	salty	2.9

Table C.2 Chow diet energy

chow	(g/g chow)	(kcal/g chow)
protein	0.240	0.960
fat	0.045	0.405
carbohydrate	0.448	1.792
Total energy		3.2

Table C.3 Syrup energy

Syrup	Energy (kcal/ml)
10% syrup	0.4
20% syrup	0.9

Table C.4 Rats water intake

Groups	Water intake (mL/week/rat)						
	Week 0	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
SDV	191 ± 15 ^b	242 ± 21 ^b	248 ± 13	212 ± 11 ^c	229 ± 2 ^b	207 ± 6 ^b	242 ± 32
SDLP	202 ± 41 ^{ab}	262 ± 46 ^b	272 ± 59	308 ± 27 ^a	282 ± 34 ^a	270 ± 32 ^a	260 ± 38
SDHP	235 ± 41 ^{ab}	305 ± 26 ^a	289 ± 33	266 ± 9 ^b	291 ± 39 ^a	263 ± 29 ^a	265 ± 41
SDM	223 ± 22 ^a	278 ± 32 ^{ab}	299 ± 54	261 ± 27 ^b	264 ± 49 ^{ab}	269 ± 59 ^a	260 ± 49
CAFV	292 ± 54 [*]	305 ± 57 ^{*,b}	257 ± 29 ^b	238 ± 38 ^c	270 ± 30 ^{*,c}	399 ± 70 ^{*,b}	338 ± 68 ^{*,bc}
CAFLP	300 ± 13 [*]	407 ± 42 ^{*,a}	259 ± 40 ^b	298 ± 22 ^b	382 ± 36 ^{*,a}	433 ± 10 ^{*,ab}	385 ± 33 ^{*,ab}
CAFHP	272 ± 59	285 ± 67 ^b	266 ± 70 ^b	314 ± 36 ^{*,b}	293 ± 38 ^{bc}	331 ± 40 ^{*,c}	311 ± 29 ^{*,c}
CAFM	255 ± 39	326 ± 53 ^{*,b}	372 ± 41 ^{*,a}	358 ± 32 ^{*,a}	342 ± 66 ^{*,ab}	478 ± 50 ^{*,a}	412 ± 24 ^{*,a}

Values are expressed as means ± S.D.

* Significant difference between SD and CAF groups with the same treatment ($p < 0.05$).

^{ab} Significant difference between vehicle and treatment groups ($p < 0.05$).