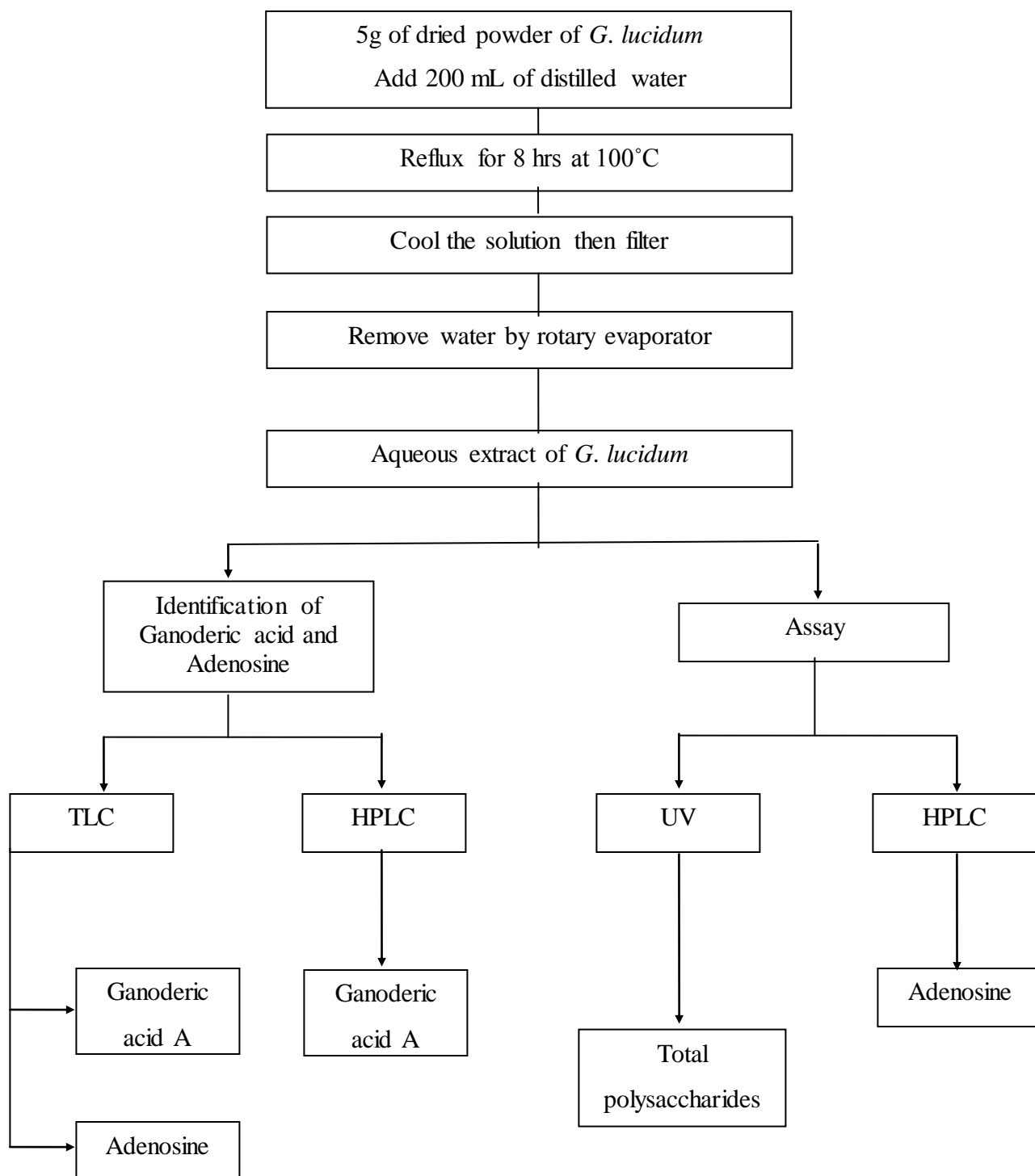


## Appendix A: Analytical Methods

- (i) Method of qualitative and quantitative analysis of the component of aqueous extract of *G. lucidum*



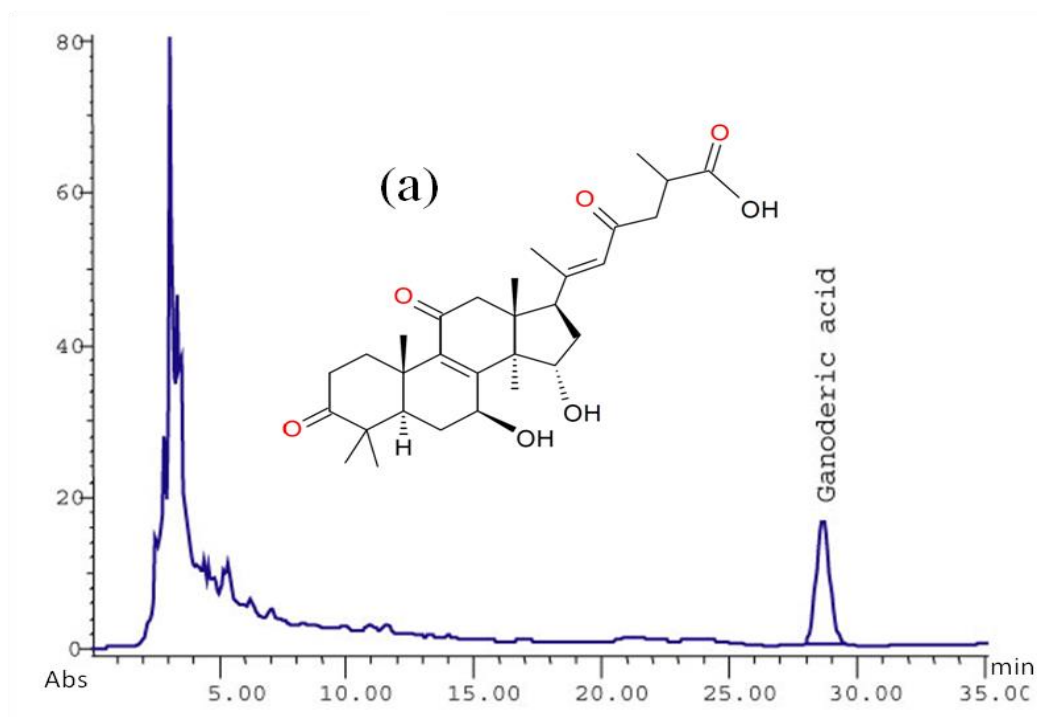
**(ii) Determination of total polysaccharides content in aqueous extract of *G. lucidum***

The total polysaccharide content of the hot aqueous extract was determined using the phenol-sulphuric acid method with D-glucose as a reference (DuBois *et al.*, 1956). Briefly, 1 mL of 5% phenol was added to 1 mL of sample solution, followed by 5 mL of concentrated H<sub>2</sub>SO<sub>4</sub>. The absorbance was measured using a spectrophotometer (Shimadzu series 1601 UV/Vis) after 10 minutes at 483 nm.

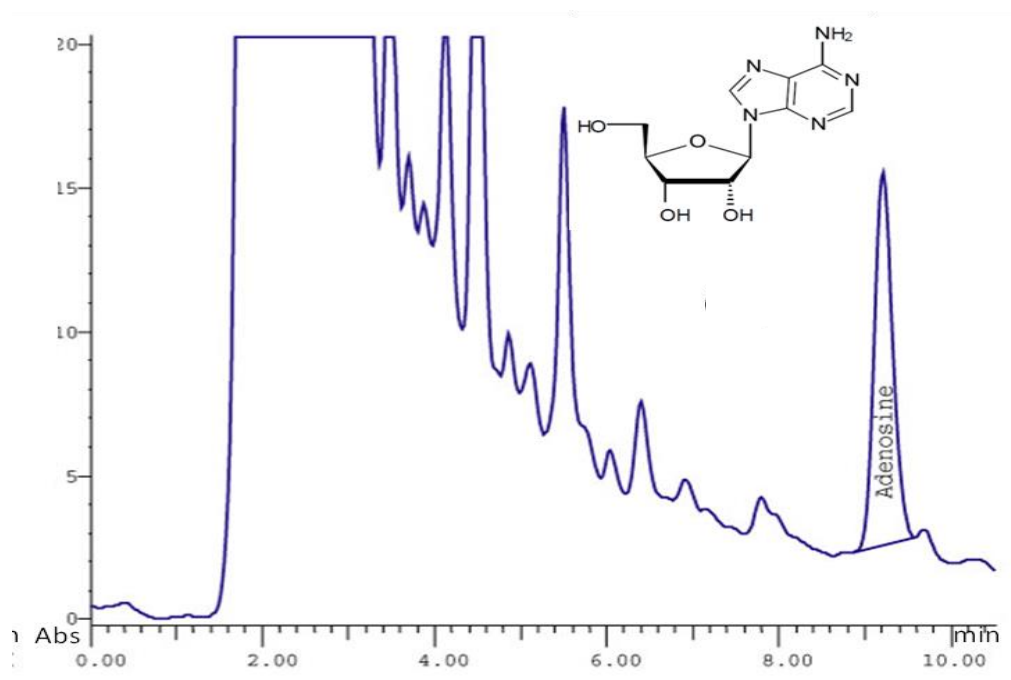
**(iii) Quantification of ganoderic acid and adenosine using HPLC**

For determination of ganoderic acid A, Perkin Elmer Series 200 liquid chromatography equipped with a Perkin Elmer Series 200 UV detector was used. The detector signal was recorded by the Turbochrom workstation software. The column used was Hypersil BDS C18 (4.6 × 250 mm) with Alltech refillable C18 Guard column (10 × 4.6 mm) (Alltech, USA). The mobile phase consisted of 5% acetic acid in methanol and the flow rate was 1.0 mL/min. The calibration curve was prepared by injecting a series of ganoderic acid A (Sigma) reference standard dilutions. Quantification and validation of adenosine was also performed in Perkin Elmer Series 200 liquid chromatography as mentioned. The mobile phase was methanol: 10 mM monobasic potassium phosphate (15:85), pH 5.0 and the flow rate was 1.5 mL/min. Both ganoderic acid A and adenosine were quantified by means of calibration curves obtained from commercial standards of these compounds (Sigma).

- (iv) HPLC chromatograms of ganoderic acid A in the aqueous extract of *G. lucidum*.



- (v) HPLC chromatograms of ganoderic acid A in the aqueous extract of *G. lucidum*.



(vi) **CUPRAC assay**

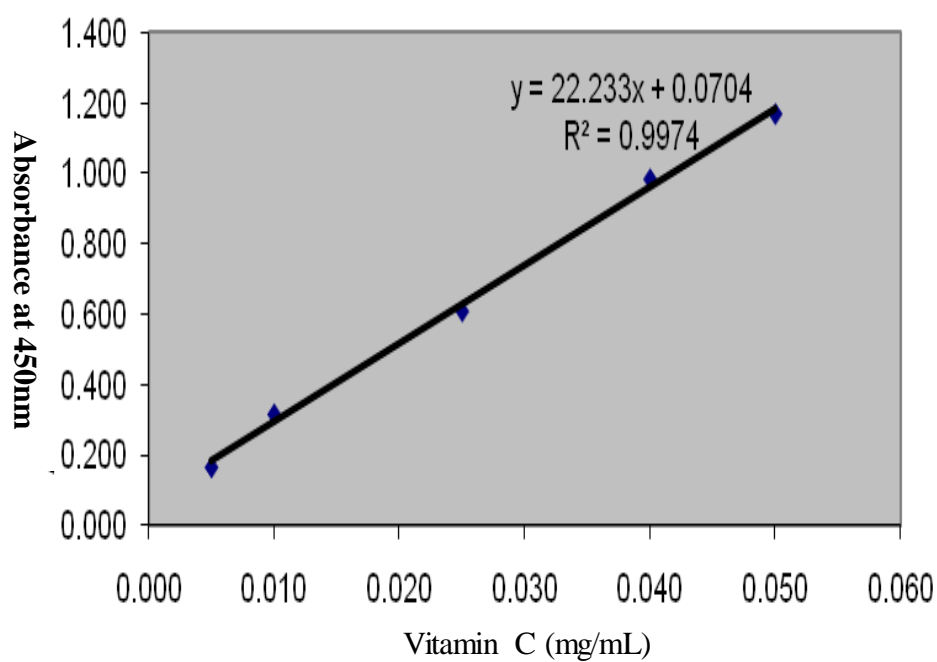
Preparation of solution:

1. Copper  $1.0 \times 10^{-2}$  M  
0.4262 copper + 250 ml dH<sub>2</sub>O
2. Neocuproine  $7.5 \times 10^{-3}$  M  
0.078 g Neocuproine + 50 ml 45 % ethanol
3. Ammonium acetate buffer solution (1M, PH 7)  
19.27 g Ammonium acetate + 250 ml dH<sub>2</sub>O

Procedure of assay

1 ml copper + 1 ml Neocuproine + 1 ml Ammonium acetate buffer  
+ 1 ml extract (Blank = dH<sub>2</sub>O) If serum use 10  $\mu$ L + dH<sub>2</sub>O 1090  $\mu$ L  
Mixed in sequence and leave for 30 min, read at absorbance 450 nm

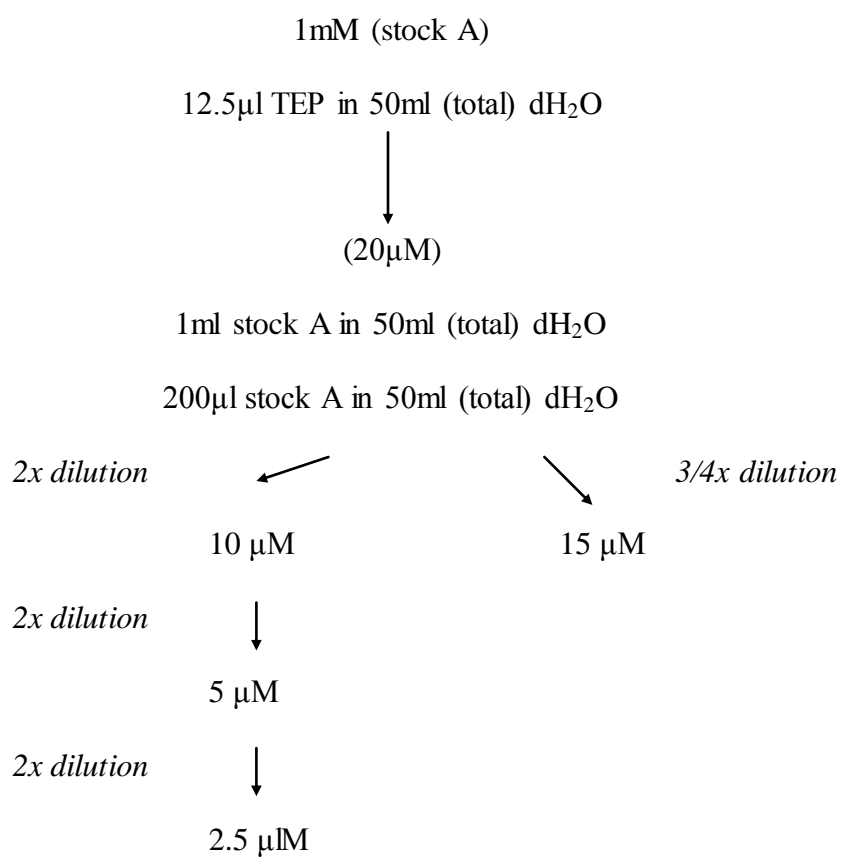
Standard curve for CUPRAC assay



**(vii) Lipid Hydroperoxides Assay**

Preparation of reagent and standard solution.

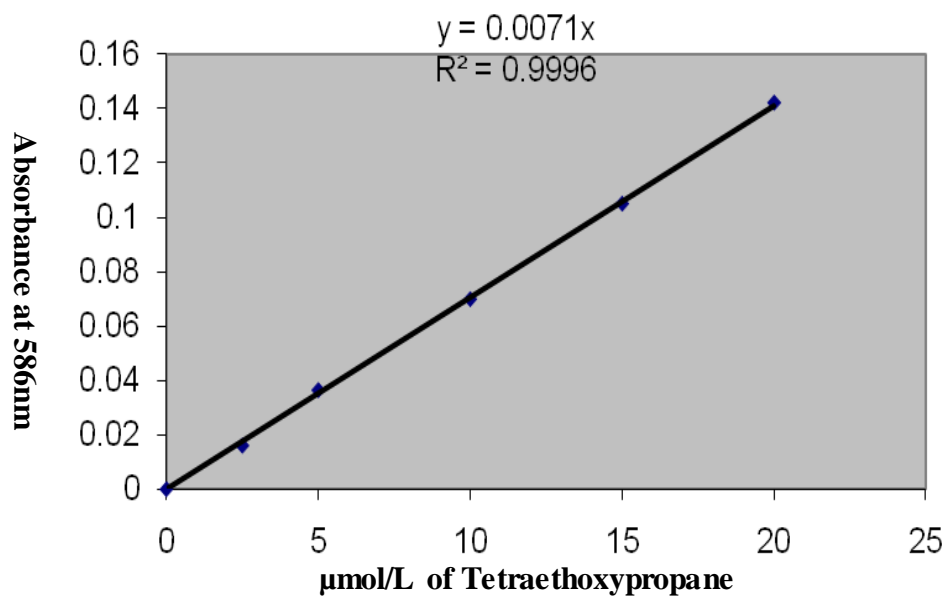
1. 10.3mM 1-methyl-2-phenylindole (MPI) in acetonitrile  
0.0213g MPI in 100ml acetonitrile
2. 5M HCl - (2x dilution from stock HCl 37%).
3. Preparation of standard solution 1,1,3,3-tetraethoxypropane (TEP, 0, 2.5, 5, 10, 15, 20  $\mu$ M)



#### 4. Procedure

150  $\mu$ l standard/sample  
+ 375  $\mu$ l MPI (10.3mM) in acetonitrile  
+ 225  $\mu$ l HCl (5M)  
↓  
Incubate in water bath: 45°C, 40 minutes  
↓  
Centrifuge: 10 000rpm, 5 minutes  
↓  
Absorbance reading  
586nm, 200 $\mu$ l per well

#### 5. Standard curve for LHP assay



### (viii) Advance Oxidation Protein Protein (AOPP)

#### Preparation of reagents and standard solution

1. PBS (phosphate buffer solution)  
1 tablet in 100 ml distilled water
2. Acetic acid 50%  
16 ml = 8 ml Acetic acid + 8 ml distilled water
3. KI (1.16M) Kalium iodide  
5 ml = 0.9628 g KI + 5 ml distilled water

Reagent mixture = 81 ml PBS + 15 ml Acetic acid + 4 ml KI = 100 ml

4. Chloramine-T (500  $\mu$ M)  
0.002845 g chloramine -T in 25 ml distilled water

Note:

- KI has to add lastly before used.
- Acetic acid is highly corrosive, need to prepare in fume hook box.
- All the mixture need to be placed on the mixer vibrator to mix well.
- All preparations need to prepare in the centrifuge tube.

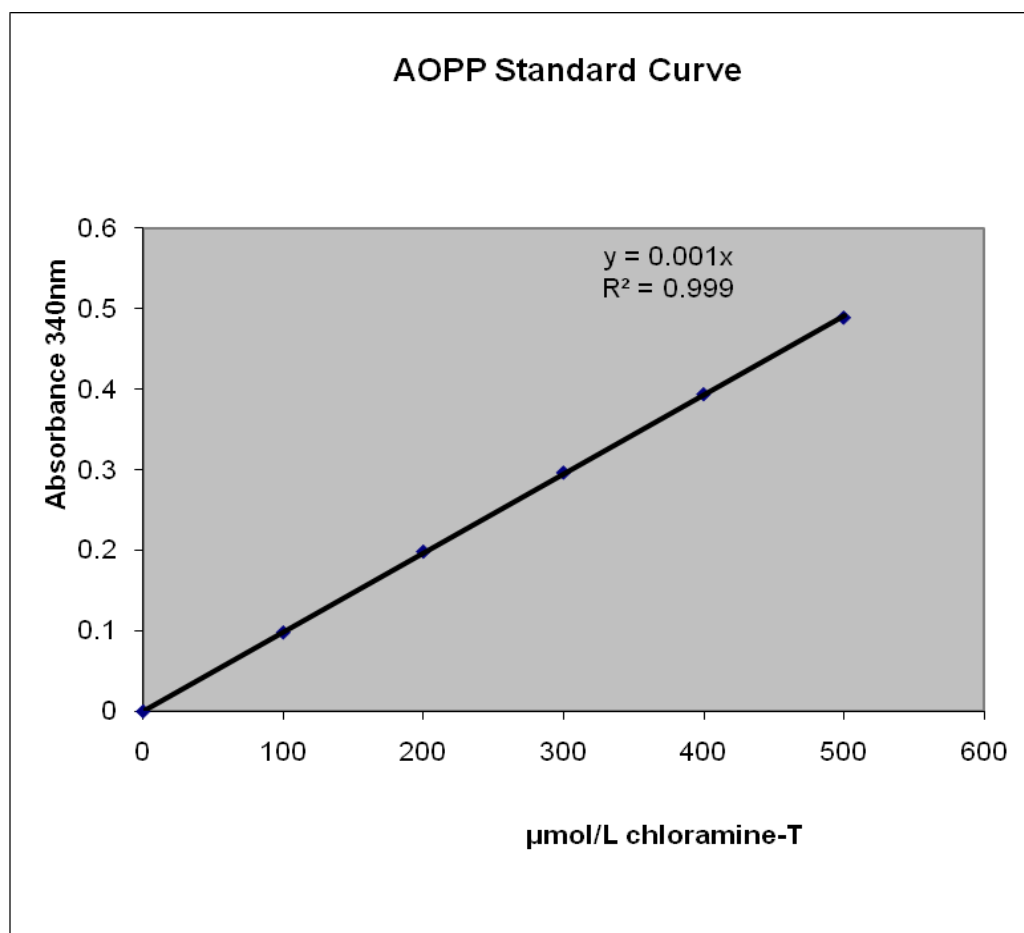
#### 5. Procedure

18  $\mu$ l plasma in Chloramine-T + 20  $\mu$ l Reagent Mixture

Place in 96 well microplate

Absorbance 340 nm power wave

## 6. Standard curve



### (ix) Preparation of streptozotocin solution (STZ)

1. Citric Acid,  $M = 210.14 \text{ g/mol}$

0.1M = 2.101 g citric acid in 100 ml distilled water

2. Sodium Citrate,  $M = 294.10 \text{ g/mol}$

0.1M = 2.941 g in 100 ml dH<sub>2</sub>O

3. Citrate Buffer 0.1 M

25 ml (1) + 25 ml (2) + 50 ml dH<sub>2</sub>O

4. STZ dosage preparation (45 mg /kg /ml)

22.5mg / 500 µl buffer = 45 mg / kg / ml



(x) **Automated tissue processing**

Process	Duration (hours)
Dehydration	
1. 10% Formalin	1
2. 10% Formalin	1
3. 70% Ethanol 1	1
4. 95% Ethanol 2	1
5. 95% Ethanol 3	1
6. 95% Ethanol 4	1
7. Absolute Ethanol 1	1
8. Absolute Ethanol 2	1½
Clearing	
9. Alcohol : Xylene (1 : 1)	1
10. Xylene 1	1
11. Xylene 2	1½
Embedding	
12. Paraffin wax 1	1½
13. Paraffin wax 2	1½
Total	14½

(xi) **Hematoxylene and eosin staining**

Process (solution)	Time duration
<b>Dewaxing</b>  1. Xylene 1  2. Xylene 2	  3 min  3 min
<b>Dehydration</b>  3. Absolute Alcohol  4. 95% Alcohol 1  5. 95% Alcohol 2  6. 70% Alcohol	  2 min  2 min  2 min  2 min
Bring section to water  Running water	  3 min
<b>Staining</b>  7. Harris' Haematoxylin  8. Running water  9. 0.5% Acid Alcohol  10. Running water  11. 2% Sodium Acetate  12. Running water  13. Rinse in 80% Alcohol  14. Eosin	  10 min  Remove colour  2-3 dips  2-3 min  2-3 dips  2-3 min  2-3 dips  5 min
Continue next page	

<b>Dehydration</b>	5 sec
15. 95% Alcohol 1	2 min
16. 95% Alcohol 2	2 min
17. Absolute Alcohol 1	2 min
18. Absolute Alcohol 2	
<b>Clearing</b>	
19. Xylene 1	2 min
20. Xylene 2	2 min
21. Xylene 3	3 min

**(xii) Masson's Trichrome staining**

Suitable for staining nuclei, cytoplasm, erythrocytes, keratin, muscle fibers, collagen, mucus

Stock solution:

1. Bouin's Solution – from Sigma, add glacial acetic acid (to 5%) just before use.
2. Alcoholic hematoxylin stock solution (solution A):

Hematoxylin from Sigma H9627 5 g + 95% Ethanol 500 mL

Dissolve over gentle heat– do not boil. Label with date and initials, store at room temperature up to 1 year.

3. 10% ferric chloride stock solution (solution B)

Ferric chloride (Iron III chloride) Sigma F7134 5.8 g

Milli-Pure water 495 ml + glacial acetic acid 5 ml

Dissolve ferric chloride in 50 ml water, add acetic acid last, store at room temperature for up to 1 year.

4. Acid fuchsin, 1% aqueous stock solution

Dissolve 1 g acid fuchsin (Sigma #857408) in 100 mL Milli-Pure water. Label and store at room temperature.

Biebrick scarlet, 1% aqueous stock solution

Dissolve 10 g biebrick scarlet (aka Ponceau BS, Sigma #B6008) in 1000 mL Milli-Pure water. Label and store at room temperature.

5. Aniline blue stock solution

Component to make 250 mL

Aniline Blue (CAS #66687-07-8) 6.25 g

Glacial acetic acid 5.0 mL

Distilled water 250 mL

Store at room temperature for up to 1 year.

6. Phosphomolybdic - Phosphotungstic acid solution

Component to make 250 mL

Phosphomolybdic acid (Sigma #221856) 3.125 g

Phosphotungstic acid (Sigma #P4006) 3.125 g

Distilled Water 250 mL

Store at room temperature for up to 1 year.

7. Working solution

1% Acetic Acid Solution

Component to make 250 mL

Glacial acetic acid 2.5 mL

Distilled Water 247.5 mL

Make fresh just before use.

8. Weigert's hematoxylin – working solution

Component to make 250 mL

Solution A – Alcoholic Hematoxylin Stock 125 mL

Solution B – 10% Ferric Chloride Stock 125 mL

Prepare just before use. Discard in “Hematoxylin Waste” container.

9. Biebrich scarlet - Acid fuchsin solution – working solution

Component to make 250 mL

Biebrich scarlet, 1% stock 222.5 ml

Acid fuchsin, 1% stock 25 ml

Glacial Acetic Acid 2.5ml

Prepare just before use.

Can be used for a maximum of two runs if within 24 hours.

10. Aniline blue working solution

Component to make 250 mL

Aniline Blue Stock Solution 250 ml

Glacial acetic acid 5.0 ml

Add glacial acetic acid just before using.

PROCEDURE:

**\*\*Always run a control slide with every stain\*\***

1. Deparaffinize and re-hydrate tissues to PBS\*
2. Distilled water\* 1 min.
3. Mordant in Bouin's – in fume hood, covered Overnight
4. Running tap water rinse – until yellow color clears 1 min.
5. Distilled water rinse 1 min.

6. Weigert's Hematoxylin working solution\* 12 min.

a. Discard after use.

7. Running tap water rinse 10 min.

8. Distilled water rinse 1 min.

9. Biebrich scarlet-acid fuchsin solution 1 min.

Solution may be used twice only, then discarded.

10. Distilled water rinse 1 quick dip only

11. Phosphomolybdic-phosphotungstic acid solution 30 min.

Discard after use.

12. Aniline blue solution\* 10 min.

Solution may be used twice only, then discarded.

13. Distilled water rinse 1 quick dip only

14. 1% Acetic acid solution 4 min.

Discard after use.

15. 95% Ethanol 2 x 1 min.

16. 100% Ethanol 2 x 1 min.

17. Formula 83 3 x 1 min.

18. Mount with Permount

Results: Cytoplasm, keratin, muscle fibers, Erythrocytes – red

Nuclei – black

Collagen and mucus – blue / green

## Appendix B: Statistic Analysis

### (i) Period of Re-epithelisation

**Table 1: Descriptive Statistics: Period of re-epithelialisation in normal rats**

Breakdown Table of Descriptive Statistic						
Treatment	N	Means	Std. Error	Std. Dev.	Minimum	Maximum
Negative	6	13.16667	0.16666	0.408248	13.00000	14.00000
Positive	6	12.83333	0.16666	0.408248	12.00000	13.00000
5% Ext	6	13.33333	0.21081	0.516398	13.00000	14.00000
10% Ext	6	12.16667	0.30731	0.752773	11.00000	13.00000
15% Ext	6	12.66667	0.49441	1.211060	11.00000	14.00000
20% Ext	6	12.50000	0.50000	1.224745	11.00000	14.00000
All groups	36	12.77778	0.14426	0.865567	11.00000	14.00000

**Table 2: ANOVA: Period of re-epithelialisation in normal rats**

Analysis of Variance (Spreadsheet 1)								
Marked effects are significant at $p < 0.05000$								
Variable	SS	df	MS	SS	df	MS	F	P
	effect	effect	effect	error	error	Error		
Rate	5.555556	5	1.111111	20.66667	30	0.688889	1.612903	

**Table 3: Duncan Variable rate Tests: Period of re-epithelialisation in normal rats**

Duncan test; variable rate (Spreadsheet) Approximate Probabilities for Post Hoc tests Error: Between MS= 0.68889, df= 30.000							
Cell No.	Treatment	(1)	(2)	(3)	(4)	(5)	(6)
		13.167	12.833	13.333	12.167	12.667	12.500
<b>1</b>	Negative		0.492	0.731	0.070	0.334	0.214
<b>2</b>	Positive	0.492		0.334	0.214	0.731	0.518293
<b>3</b>	5% Ext	0.731	0.334		<b>0.038</b>	0.214	0.130
<b>4</b>	10% Ext	0.070	0.214	<b>0.038</b>		0.334	0.492
<b>5</b>	15% Ext	0.334	0.731	0.214	0.334		0.731
<b>6</b>	20% Ext	0.214	0.518	0.130	0.492	0.731	

Marked effects are significant at  $p < 0.050$

**Table 4: Dunnett Variable rate Test: Period of re-epithelialisation in normal rats**

Cell No.	Treatment	(1) 13.167
<b>1</b>	Negative	
<b>2</b>	Positive	0.932197
<b>3</b>	5% Ext	0.996483
<b>4</b>	10% Ext	0.163478
<b>5</b>	15% Ext	0.745852
<b>6</b>	20% Ext	0.506827

Marked effects are significant at  $p < 0.050$



**Table 5: Descriptive Statistics: Period of re-epithelialisation in diabetic rats**

Treatment	N	Means	Std. Error	Std. Dev.	Minimum	Maximum
Negative	6	15.333	0.558	1.366	14.000	17.000
Positive	6	14.833	0.401	0.983	13.000	16.000
5% Ext	6	13.667	0.333	0.816	13.000	15.000
10% Ext	6	12.833	1.667	0.408	12.000	13.000
15% Ext	6	14.000	0.365	0.894	13.000	15.000
20% Ext	6	13.000	0.258	0.632	12.000	14.000
All groups	36	13.944	0.207	1.241	12.000	17.000

**Table 6: ANOVA: Period of re-epithelialisation in diabetic rats**

Analysis of Variance								
Marked effects are significant at $p < 0.050$								
Variable	SS	df	MS	SS	df	MS	F	P
	effect	effect	effect	error	error	Error		
Rate	29.556	5	5.911	24.333	30	0.811	7.288	0.0001

**Table 7: Duncan Variable rate Tests: Period of re-epithelialisation in diabetic rats**

Duncan test; variable rate (Spreadsheet) Approximate Probabilities for Post Hoc tests Error: Between MS= 0.811, df= 30.000							
Cell No.	Treatment	(1) 15.333	(2) 14.833	(3) 13.667	(4) 12.833	(5) 14.000	(6) 13.000
1	Negative		0.344	0.005	0.000	0.020	0.000
2	Positive	0.344		0.041	0.001	0.120	0.002
3	5% Ext	0.005	0.041		0.140	0.526	0.210
4	10% Ext	0.000	0.001	0.140		0.047	0.751
5	15% Ext	0.020	0.120	0.526	0.047		0.077
6	20% Ext	0.000	0.002	0.210	0.751	0.078	

Marked effects are significant at  $p < 0.050$

**Table 8: Dunnett Variable rate Test: Period of re-epithelialisation in diabetic rats**

Cell No.	Treatment	(1) 15.333
1	Negative	
2	Positive	0.789
3	5% Ext	0.014
4	10% Ext	0.000
5	15% Ext	0.061
6	20% Ext	0.000

Marked effects are significant at  $p < 0.050$

(ii) **Wound Closure**

**Table 9: Descriptive Statistics: The rate of wound closure on day 4 post-operation in normal rats**

<b>Treatment</b>	<b>N</b>	<b>Means</b>	<b>Std. Error</b>	<b>Std. Dev.</b>	<b>Minimum</b>	<b>Maximum</b>
<b>Negative</b>	6	6.226	1.536	1.314	4.347	8.000
<b>Positive</b>	6	27.653	6.202	15.193	14.286	50.000
<b>5% Ext</b>	6	17.055	4.089	10.016	5.000	30.435
<b>10% Ext</b>	6	26.783	3.097	7.585	17.647	36.000
<b>15% Ext</b>	6	22.352	3.883	9.514	13.000	36.000
<b>20% Ext</b>	6	21.481	4.016	9.818	13.000	36.000
<b>All groups</b>	36	20.259	1.942	11.650	4.348	50.000

**Table 10: ANOVA: The rate of wound closure on day 4 post-operation in normal rats**

<b>Analysis of Variance</b>								
<b>Marked effects are significant at <math>p &lt; 0.050</math></b>								
<b>Variable</b>	<b>SS</b>	<b>df</b>	<b>MS</b>	<b>SS</b>	<b>df</b>	<b>MS</b>	<b>F</b>	<b>P</b>
	effect	effect	effect	error	error	error		
<b>Rate</b>	1861.808	5	372.362	2888.461	30	96.282	3.867	0.008

**Table 11: Duncan Variable rate Tests: The rate of wound closure on day 4 post-operation in normal rats**

Duncan test; variable rate (Spreadsheet)							
Approximate Probabilities for Post Hoc tests							
Error: Between MS= 96.282, df= 30.000							
Cell No.	Treatment	(1)	(2)	(3)	(4)	(5)	(6)
		6.227	27.653	17.055	26.784	22.352	21.481
1	Negative		0.002	0.066	0.002	0.013	0.015
2	Positive	0.002		0.104	0.879	0.385	0.330
3	5% Ext	0.066	0.104		0.126	0.386	0.441
4	10% Ext	0.002	0.879	0.126		0.440	0.385
5	15% Ext	0.013	0.386	0.386	0.440		0.879
6	20% Ext	0.015	0.330	0.441	0.385	0.879	

Marked effects are significant at  $p < 0.050$

**Table 12: Dunnett Variable rate Test: The rate of wound closure on day 4 post-operation in normal rats**

Cell No.	Treatment	(1)
		6.227
1	Negative	
2	Positive	0.003
3	5% Ext	0.226
4	10% Ext	0.004
5	15% Ext	0.032
6	20% Ext	0.046

Marked effects are significant at  $p < 0.050$

**Table 13: Descriptive Statistics: The rate of wound closure on day 4 post-operation in diabetic rats**

Treatment	N	Means	Std. Error	Std. Dev.	Minimum	Maximum
Negative	6	-78.418	7.846	19.220	-112.500	-64.706
Positive	6	29.689	6.172	15.118	9.091	46.667
5% Ext	6	-11.915	10.494	25.705	-50.000	26.667
10% Ext	6	4.512	6.894	16.886	-22.222	20.000
15% Ext	6	-66.710	13.070	32.015	-90.000	-25.000
20% Ext	6	-62.407	5.437	13.318	-80.000	-50.000
All groups	36	-30.873	7.593	45.556	-112.500	46.667

**Table 14: ANOVA: The rate of wound closure on day 4 post-operation in diabetic rats**

Analysis of Variance								
Marked effects are significant at $p < 0.050$								
Variable	SS	df	MS	SS	df	MS	F	P
	effect	effect	effect	error	error	error		
Rate	58906.55	5	11781.31	13730.78	30	457.693	25.741	0.000

**Table 15: Duncan Variable rate Tests: The rate of wound closure on day 4 post-operation in diabetic rats**

Duncan test; variable rate (Spreadsheet) Approximate Probabilities for Post Hoc tests Error: Between MS= 457.69, df= 30.000							
Cell No.	Treatment	(1)	(2)	(3)	(4)	(5)	(6)
		-78.420	29.689	-11.910	4.512	-66.700	-62.410
1	Negative		0.000	0.000	0.000	0.351	0.230
2	Positive	0.000		0.003	0.051	0.000	0.000
3	5% Ext	0.000	0.000		0.194	0.000	0.000
4	10% Ext	0.000	0.051	0.194		0.000	0.000
5	15% Ext	0.351	0.000	0.000	0.000		0.731
6	20% Ext	0.230	0.000	0.000	0.000	0.731	

Marked effects are significant at  $p < 0.050$

**Table 16: Dunnett Variable rate Test: The rate of wound closure on day 4 post-operation in diabetic rats**

Cell No.	Treatment	(1)
1	Negative	6.227
2	Positive	0.000
3	5% Ext	0.000
4	10% Ext	0.000
5	15% Ext	0.806
6	20% Ext	0.571

Marked effects are significant at  $p < 0.050$

**Table 17: Descriptive Statistics: The rate of wound closure on day 8 post-operation in normal rats**

Treatment	N	Means	Std. Error	Std. Dev.	Minimum	Maximum
Negative	6	49.129	7.084	17.351	26.667	70.000
Positive	6	68.712	4.864	11.915	53.333	85.000
5% Ext	6	65.511	4.226	10.352	55.556	78.947
10% Ext	6	67.319	3.016	7.388	60.000	77.273
15% Ext	6	75.284	5.351	13.106	50.000	86.364
20% Ext	6	75.830	5.352	13.110	50.000	86.364
All groups	36	66.964	2.451	14.706	26.667	86.364

**Table 18: ANOVA: The rate of wound closure on day 8 post-operation in normal rats**

Analysis of Variance								
Marked effects are significant at p< 0.050								
Variable	SS	df	MS	SS	df	MS	F	P
	effect	effect	effect	error	error	error		
Rate	2827.289	5	565.458	4742.133	30	158.071	3.577	0.012

**Table 19: Duncan Variable rate Tests: The rate of wound closure on day 8 post-operation in normal rats**

Duncan test; variable rate (Spreadsheet)							
Approximate Probabilities for Post Hoc tests							
Error: Between MS= 158.07, df= 30.000							
Cell No.	Treatment	(1)	(2)	(3)	(4)	(5)	(6)
		49.129	68.712	65.512	67.319	75.284	75.830
1	Negative		0.018	0.032	0.023	0.002	0.002
2	Positive	0.018		0.682	0.849	0.373	0.363
3	5% Ext	0.032	0.682		0.805	0.229	0.214
4	10% Ext	0.023	0.849	0.805		0.309	0.294
5	15% Ext	0.002	0.373	0.229	0.309		0.941
6	20% Ext	0.002	0.363	0.214	0.294	0.941	

Marked effects are significant at  $p < 0.050$

**Table 20: Dunnett Variable rate Test: The rate of wound closure on day 8 post-operation in normal rats**

Cell No.	Treatment	(1)
		49.129
1	Negative	
2	Positive	0.046
3	5% Ext	0.117
4	10% Ext	0.070
5	15% Ext	0.005
6	20% Ext	0.004

Marked effects are significant at  $p < 0.050$



**Table 21: Descriptive Statistics: The rate of wound closure on day 8 post-operation in diabetic rats**

Treatment	N	Means	Std. Error	Std. Dev.	Minimum	Maximum
Negative	6	54.743	3.732	9.142	42.857	64.706
Positive	6	54.743	3.732	9.142	42.857	64.706
5% Ext	6	47.629	7.366	18.044	18.750	66.667
10% Ext	6	58.535	4.326	10.596	40.000	70.000
15% Ext	6	44.304	2.628	6.438	35.000	52.632
20% Ext	6	40.417	3.787	9.276	33.333	58.333
All groups	36	50.062	2.021	12.129	18.750	70.000

**Table 22: ANOVA: The rate of wound closure on day 8 post-operation in diabetic rats**

Analysis of Variance								
Marked effects are significant at $p < 0.050$								
Variable	SS	df	MS	SS	df	MS	F	P
	effect	effect	effect	error	error	error		
Rate	1486.358	5	297.272	3662.345	30	122.078	2.4345	0.058

**Table 23: Duncan Variable rate Tests: The rate of wound closure on day 8 post-operation in diabetic rats**

Duncan test; variable rate (Spreadsheet) Approximate Probabilities for Post Hoc tests Error: Between MS= 122.08, df= 30.000							
Cell No.	Treatment	(1) 54.743	(2) 54.743	(3) 47.629	(4) 58.535	(5) 44.304	(6) 40.417
1	Negative		1.000	0.302	0.557	0.145	0.052
2	Positive	1.000		0.274	0.581	0.132	0.047
3	5% Ext	0.302	0.274		0.128	0.606	0.295
4	10% Ext	0.557	0.581	0.128		0.053	0.016
5	15% Ext	0.145	0.132	0.606	0.053		0.547
6	20% Ext	0.052	0.047	0.295	0.016	0.547	

Marked effects are significant at  $p < 0.050$

**Table 24: Dunnett Variable rate Test: The rate of wound closure on day 8 post-operation in diabetic rats**

Cell No.	Treatment	(1) 54.743
1	Negative	
2	Positive	1.000
3	5% Ext	0.697
4	10% Ext	0.963
5	15% Ext	0.357
6	20% Ext	0.120

Marked effects are significant at  $p < 0.050$

**Table 25: Descriptive Statistics: The rate of wound closure on day 12 post-operation in normal rats**

Treatment	N	Means	Std. Error	Std. Dev.	Minimum	Maximum
Negative	6	90.689	2.022	4.954	85.090	97.222
Positive	6	96.114	1.679	4.411	90.000	100.000
5% Ext	6	90.295	2.289	5.607	84.211	100.000
10% Ext	6	98.780	0.559	1.370	97.059	100.000
15% Ext	6	96.235	1.508	3.694	89.990	100.000
20% Ext	6	96.767	1.108	2.715	93.182	100.000
All groups	36	94.813	0.818	4.908	84.211	100.000

**Table 26: ANOVA: The rate of wound closure on day 12 post-operation in normal rats**

Analysis of Variance								
Marked effects are significant at $p < 0.050$								
Variable	SS	df	MS	SS	df	MS	F	P
	effect	effect	effect	error	error	error		
Rate	364.085	5	72.817	478.939	30	15.965	4.561	0.003

Treatment	N	Means	Std. Error	Std. Dev.	Minimum	Maximum
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**Table 27: Duncan Variable rate Tests: The rate of wound closure on day 12 post-operation in normal rats**

Duncan test; variable rate (Spreadsheet) Approximate Probabilities for Post Hoc tests Error: Between MS= 158.07, df= 30.000							
Cell No.	Treatment	(1) 90.689	(2) 96.114	(3) 90.295	(4) 98.780	(5) 96.235	(6) 96.767
1	Negative		0.026	0.866	0.003	0.029	0.021
2	Positive	0.026		0.022	0.301	0.959	0.792
3	5% Ext	0.866	0.022		0.002	0.023	0.016
4	10% Ext	0.003	0.301	0.002		0.307	0.390
5	15% Ext	0.029	0.959	0.023	0.307		0.819
6	20% Ext	0.021	0.792	0.016	0.390	0.819	

Marked effects are significant at  $p < 0.050$

**Table 28: Dunnett Variable rate Test: The rate of wound closure on day 12 post-operation in normal rats**

Cell No.	Treatment	(1) 90.689
1	Negative	
2	Positive	0.097
3	5% Ext	1.000
4	10% Ext	0.006
5	15% Ext	0.087
6	20% Ext	0.053

Marked effects are significant at  $p < 0.050$

<b>Negative</b>	6	62.323	3.693	9.047	50.000	76.471
<b>Positive</b>	6	70.273	3.772	9.239	57.143	81.250
<b>5% Ext</b>	6	82.600	6.347	15.548	62.500	100.000
<b>10% Ext</b>	6	96.818	2.016	4.938	90.000	100.000
<b>15% Ext</b>	6	85.560	2.635	6.454	75.000	90.000
<b>20% Ext</b>	6	90.648	2.206	5.403	83.333	100.000
<b>All groups</b>	36	81.370	2.440	14.638	50.000	100.000

**Table 29: Descriptive Statistics: The rate of wound closure on day 12 post-operation in diabetic rats**

**Table 30: ANOVA: The rate of wound closure on day 12 post-operation in diabetic rats**

Analysis of Variance								
Marked effects are significant at $p < 0.050$								
Variable	SS	df	MS	SS	df	MS	F	P
	effect	effect	effect	error	error	error		
Rate	4978.420	5	995.684	2520.681	30	84.023	11.850	0.000

**Table 31: Duncan Variable rate Tests: The rate of wound closure on day 12 post-operation in diabetic rats**

Duncan test; variable rate (Spreadsheet)							
Approximate Probabilities for Post Hoc tests							
Error: Between MS= 84.023, df= 30.000							
Cell No.	Treatment	(1) 62.323	(2) 70..273	(3) 82.599	(4) 96.818	(5) 85.560	(6) 90.648
1	Negative		0.144	0.001	0.00003	0.0003	0.00005
2	Positive	0.144		0.027	0.00008	0.010	0.001
3	5% Ext	0.001	0.027		0.018	0.580	0.161
4	10% Ext	0.0003	0.00008	0.018		0.052	0.253
5	15% Ext	0.0002	0.010	0.580	0.052		0.344
6	20% Ext	0.00005	0.001	0.161	0.253	0.344	

Marked effects are significant at  $p < 0.050$

**Table 32: Dunnett Variable rate Test: The rate of wound closure on day 12 post-operation in diabetic rats**

Cell No.	Treatment	(1) 62.323
1	Negative	
2	Positive	0.435
3	5% Ext	0.003
4	10% Ext	0.00001
5	15% Ext	0.001
6	20% Ext	0.00005

Marked effects are significant at  $p < 0.050$

(iii) CUPRAC value

**Table 33 : Descriptive Statistics: CUPRAC values in the serum of normal rats**

Treatment	N	Means	Std. Error	Std. Dev.	Minimum	Maximum
Negative	6	0.126	0.013	0.032	0.080	0.172
Positive	6	0.089	0.009	0.022	0.072	0.133
5% Ext	6	0.238	0.039	0.095	0.150	0.414
10% Ext	6	0.237	0.024	0.059	0.166	0.340
15% Ext	6	0.259	0.020	0.048	0.221	0.352
20% Ext	6	0.256	0.022	0.053	0.208	0.358
All groups	36	0.201	0.014	0.086	0.072	0.414

**Table 34: ANOVA: CUPRAC values in the serum of normal rats**

Analysis of Variance								
Marked effects are significant at $p < 0.050$								
Variable	SS	df	MS	SS	df	MS	F	P
	effect	effect	effect	error	error	error		
Rate	4978.420	5	995.684	2520.681	30	84.023	11.850	0.000009

**Table 35: Duncan Variable rate Tests: CUPRAC values in the serum of normal rats**

Duncan test; variable rate (Spreadsheet)							
Approximate Probabilities for Post Hoc tests							
Error: Between MS= 0.0319, df= 30.000							
Cell No.	Treatment	(1)	(2)	(3)	(4)	(5)	(6)
		.12600	.08883	.23767	.23700	.25867	.25617
<b>1</b>	Negative		.263845	<b>.002557</b>	<b>.002050</b>	<b>.000711</b>	<b>.000740</b>
<b>2</b>	Positive	.263845		<b>.000192</b>	<b>.000176</b>	<b>.000059</b>	<b>.000069</b>
<b>3</b>	5% Ext	<b>.002557</b>	<b>.000192</b>		.983939	.549979	.575101
<b>4</b>	10% Ext	<b>.002050</b>	<b>.000176</b>	.983939		.551561	.585236
<b>5</b>	15% Ext	<b>.000711</b>	<b>.000059</b>	.549979	.0551561		.939531
<b>6</b>	20% Ext	<b>.000740</b>	<b>.0000069</b>	.575101	.585236	.939531	

Marked effects are significant at  $p < 0.050$

**Table 36: Dunnett Variable rate Test: CUPRAC values in the serum of normal rats**

Cell No.	Treatment	(1)
		62.323
<b>1</b>	Negative	
<b>2</b>	Positive	0.681
<b>3</b>	5% Ext	<b>0.008</b>
<b>4</b>	10% Ext	<b>0.008</b>
<b>5</b>	15% Ext	<b>.0015</b>
<b>6</b>	20% Ext	<b>.0018</b>

Marked effects are significant at  $p < 0.050$



**Table 37: Descriptive Statistics: CUPRAC values in the serum of diabetic rats**

Treatment	N	Means	Std. Error	Std. Dev.	Minimum	Maximum
Negative	6	0.188	0.007	0.018	0.156	0.210
Positive	6	0.164	0.023	0.057	0.100	0.267
5% Ext	6	0.233	0.016	0.040	0.155	0.267
10% Ext	6	0.219	0.024	0.057	0.166	0.340
15% Ext	6	0.250	0.011	0.028	0.210	0.297
20% Ext	6	0.241	0.024	0.059	0.191	0.352
All groups	36	0.216	0.009	0.052	0.100	0.352

**Table 38: ANOVA: CUPRAC values in the serum of diabetic rats**

Analysis of Variance								
Marked effects are significant at $p < 0.050$								
Variable	SS	df	MS	SS	df	MS	F	P
	effect	effect	effect	error	error	error		
Rate	0.0034	5	0.0068	0.0643	30	0.0021	3.1679	0.0206

**Table 39: Duncan Variable rate Tests: CUPRAC values in the serum of diabetic rats**

Duncan test; variable rate (Spreadsheet)							
Approximate Probabilities for Post Hoc tests							
Error: Between MS= 0.0319, df= 30.000							
Cell No.	Treatment	(1)	(2)	(3)	(4)	(5)	(6)
		0.188	0.164	0.219	0.233	0.250	0.242
<b>1</b>	Negative		.3766	0.251	0.120	0.043	0.073
<b>2</b>	Positive	0.377		0.058	<b>0.023</b>	<b>0.006</b>	<b>0.012</b>
<b>3</b>	5% Ext	0.251	.0584		0.609	0.297	0.431
<b>4</b>	10% Ext	0.120	<b>.0227</b>	0.609		0.547	0.743
<b>5</b>	15% Ext	<b>0.043</b>	<b>.0065</b>	0.297	0.547		0.753
<b>6</b>	20% Ext	0.073	<b>.0122</b>	0.431	0.743	0.753	

Marked effects are significant at  $p < 0.050$

**Table 40: Dunnett Variable rate Test: CUPRAC values in the serum of diabetic rats**

Cell No.	Treatment	(1)
		62.323
<b>1</b>	Negative	
<b>2</b>	Positive	0.4969
<b>3</b>	5% Ext	<b>0.0078</b>
<b>4</b>	10% Ext	<b>0.0032</b>
<b>5</b>	15% Ext	<b>0.0001</b>
<b>6</b>	20% Ext	<b>0.0004</b>

Marked effects are significant at  $p < 0.050$

(iv) AOPP values

**Table 41 : Descriptive Statistics: AOPP values in the serum of normal rats**

Treatment	N	Means	Std. Error	Std. Dev.	Minimum	Maximum
Negative	6	287.500	12.439	30.468	253.000	335.000
Positive	6	269.667	12.516	30.657	217.000	315.000
5% Ext	6	277.333	13.672	33.488	149.000	304.000
10% Ext	6	241.833	25.103	61.490	146.000	331.000
15% Ext	6	277.333	40.135	98.311	146.000	369.000
20% Ext	6	226.000	11.685	28.622	175.000	264.000
All groups	36	263.278	9.064	54.382	146.000	369.000

**Table 42: ANOVA: AOPP values in the serum of normal rats**

Analysis of Variance								
Marked effects are significant at $p < 0.050$								
Variable	SS	df	MS	SS	df	MS	F	P
	effect	effect	effect	error	error	error		
Rate	17232.89	5	3446.58	86274.33	30	2875.81	1.1985	0.334

**Table 43: Duncan Variable rate Tests: AOPP values in the serum of normal rats**

Duncan test; variable rate (Spreadsheet) Approximate Probabilities for Post Hoc tests Error: Between MS= 2875.8, df= 30.000							
Cell	Treatment	(1)	(2)	(3)	(4)	(5)	(6)
No.		287.50	269.67	277.33	241.83	277.33	226.00
1	Negative		0.605	0.760	0.198	0.745	0.089
2	Positive	0.605		0.806	0.376	0.818	0.193
3	5% Ext	0.760	0.806		0.288	1.000	0.140
4	10% Ext	0.198	0.376	0.288		0.305	0.613
5	15% Ext	0.745	0.818	1.000	0.305		0.148
6	20% Ext	0.089	0.193	0.140	0.613	0.148	

Marked effects are significant at  $p < 0.050$

**Table 44: Dunnett Variable rate Test: AOPP values in the serum of normal rats**

Cell No.	Treatment	(1)
		287.50
1	Negative	
2	Positive	0.968
3	5% Ext	0.997
4	10% Ext	0.452
5	15% Ext	0.997
6	20% Ext	0.197

Marked effects are significant at  $p < 0.050$

**Table 45: Descriptive Statistics: AOPP values in the serum of diabetic rats**

Treatment	N	Means	Std. Error	Std. Dev.	Minimum	Maximum
Negative	6	615.67	50.772	124.365	506.000	811.000
Positive	6	620.000	71.939	176.214	344.000	824.000
5% Ext	6	555.333	61.496	150.633	350.000	756.000
10% Ext	6	544.667	56.560	138.640	343.000	760.000
15% Ext	6	536.500	65.748	161.049	312.000	732.000
20% Ext	6	536.500	71.286	174.614	355.000	846.000
All groups	36	567.556	24.783	148.430	312.000	846.000

**Table 46: ANOVA: AOPP values in the serum of normal rats**

Analysis of Variance								
Marked effects are significant at $p < 0.050$								
Variable	SS	df	MS	SS	df	MS	F	P
	effect	effect	effect	error	error	error		
Rate	46820.56	5	9364.11	724278.3	30	24142.61	0.388	0.853

**Table 47: Duncan Variable rate Tests: AOPP values in the serum of diabetic rats**

Duncan test; variable rate (Spreadsheet) Approximate Probabilities for Post Hoc tests Error: Between MS= 24143, df= 30.000							
Cell No.	Treatment	(1)	(2)	(3)	(4)	(5)	(6)
		615.17	620.00	555.33	533.67	544.67	536.50
1	Negative		0.957	0.510	0.426	0.467	0.432
2	Positive	0.957		0.503	0.406	0.452	0.415
3	5% Ext	0.510	0.503		0.829	0.906	0.845
4	10% Ext	0.426	0.406	0.829		0.910	0.975
5	15% Ext	0.466	0.452	0.906	0.910		0.928
6	20% Ext	0.432	0.415	0.845	0.975	0.928	

**Table 48: Dunnett Variable rate Test: AOPP values in the serum of normal rats**

Cell No.	Treatment	(1)
		615.17
1	Negative	
2	Positive	1.000
3	5% Ext	0.942
4	10% Ext	0.830
5	15% Ext	0.895
6	20% Ext	0.848

Marked effects are significant at  $p < 0.050$

(v) LHP Value

**Table 49: Descriptive Statistics: LHP values in the serum of normal rat**

Treatment	N	Means	Std. Error	Std. Dev.	Minimum	Maximum
Negative	6	15.505	0.477	1.096	13.800	16.990
Positive	6	15.377	0.718	1.760	13.250	17.750
5% Ext	6	16.158	0.483	1.183	14.440	17.750
10% Ext	6	15.992	0.766	1.875	12.690	18.190
15% Ext	6	16.252	0.375	3.369	12.880	22.250
20% Ext	6	15.688	0.757	1.855	13.440	18.690
All groups	36	15.829	0.314	1.881	12.690	22.250

**Table 50: ANOVA: LHP values in the serum of normal rats**

Analysis of Variance								
Marked effects are significant at $p < 0.050$								
Variable	SS	df	MS	SS	df	MS	F	P
	effect	effect	effect	error	error	error		
Rate	3.858	5	0.772	120.020	30	4.000674	0.193	0.963

**Table 51: Duncan Variable rate Tests: LHP values in the serum of normal rats**

Duncan test; variable rate (Spreadsheet) Approximate Probabilities for Post Hoc tests Error: Between MS=4.0007, df= 30.000							
Cell	Treatment	(1)	(2)	(3)	(4)	(5)	(6)
<b>No.</b>		15.505	15.377	16.158	15.992	16.252	15.688
<b>1</b>	Negative		0.912	0.612	0.695	0.571	0.875
<b>2</b>	Positive	0.912		0.553	0.633	0.513	0.802
<b>3</b>	5% Ext	0.612	0.553		0.886	0.936	0.705
<b>4</b>	10% Ext	0.695	0.633	0.886		0.834	0.794
<b>5</b>	15% Ext	0.571	0.513	0.936	0.834		0.662
<b>6</b>	20% Ext	0.875	0.802	0.705	0.795	0.662	

Marked effects are significant at  $p < 0.050$

**Table 52: Dunnett Variable rate Test: LHP values in the serum of normal rats**

Cell No.	Treatment	(1)
		15.505
<b>1</b>	Negative	
<b>2</b>	Positive	1.000
<b>3</b>	5% Ext	0.970
<b>4</b>	10% Ext	0.992
<b>5</b>	15% Ext	0.950
<b>6</b>	20% Ext	1.000

Marked effects are significant at  $p < 0.050$



**Table 53: Descriptive Statistics: LHP values in the serum of diabetic rats**

Treatment	N	Means	Std. Error	Std. Dev.	Minimum	Maximum
Negative	6	22.297	1.014	2.483	20.310	27.060
Positive	6	18.600	1.781	4.362	13.060	23.190
5% Ext	6	21.595	0.560	1.371	19.940	23.690
10% Ext	6	20.947	1.144	2.803	18.190	26.250
15% Ext	6	25.712	2.537	6.215	19.000	36.500
20% Ext	6	23.438	2.938	7.197	13.940	36.130
All groups	36	22.096	0.796	4.778	13.060	36.500

**Table 54: ANOVA: LHP values in the serum of diabetic rats**

Analysis of Variance								
Marked effects are significant at $p < 0.050$								
Variable	SS	df	MS	SS	df	MS	F	P
	effect	effect	effect	error	error	error		
Rate	172.094	5	34.419	626.807	30	20.894	1.647	0.178

**Table 55: Duncan Variable rate Tests: LHP values in the serum of diabetic rats**

Duncan test; variable rate (Spreadsheet) Approximate Probabilities for Post Hoc tests Error: Between MS=20.894, df= 30.000							
Cell No.	Treatment	(1) 22.297	(2) 18.600	(3) 21.595	(4) 20.947	(5) 25.712	(6) 23.428
1	Negative		0.211	0.792	0.634	0.232	0.671
2	Positive	0.211		0.293	0.381	0.022	0.111
3	5% Ext	0.792	0.293		0.808	0.164	0.519
4	10% Ext	0.634	0.381	0.808		0.116	0.400
5	15% Ext	0.232	0.022	0.164	0.116		0.394
6	20% Ext	0.671	0.111	0.519	0.400	0.394	

**Table 56: Dunnett Variable rate Test: LHP values in the serum of normal rats**

Cell No.	Treatment	(1) 22.297
1	Negative	
2	Positive	0.500
3	5% Ext	0.999
4	10% Ext	0.980
5	15% Ext	0.573
6	20% Ext	0.991

Marked effects are significant at  $p < 0.050$

## Appendix C: Raw Data

**Table 1: Streptozotocin injection and Blood Glucose Reading**

Rats	Body Weight/g	STZ Injection/ mL	Blood Glucose Mmol/L
1	188	0.19	7.0
2	151	0.15	15.2
3	194	0.19	25.8
4	211	0.21	22.9
5	169	0.17	4.2
6	209	0.21	18.2
7	188	0.19	7.0
8	156	0.16	11.4
9	208	0.21	5.4
10	198	0.20	18.1
11	169	0.17	18.4
12	159	0.16	22.2
13	175	0.18	6.9
14	156	0.16	11.4
15	177	0.18	9.9
16	201	0.20	18.3
17	190	0.19	19.9
18	163	0.16	4.7
19	160	0.16	25.8
20	190	0.19	27.2
21	177	0.18	9.9
22	159	0.16	6.7
23	164	0.16	23.1
24	188	0.19	22.6
25	274	0.27	21.3
26	176	0.18	18.9
27	156	0.16	22.8
28	159	0.16	6.7
29	163	0.15	19.9
30	152	0.15	19.6
331	178	0.15	14.9
32	163	0.15	19.8
33	153	0.15	24.7
34	149	0.16	25.1
35	149	0.15	25.0
36	135	0.15	14.7
37	141	0.15	16.2
38	145	0.15	23.3
39	141	0.15	12.1
40	151	0.15	16.7
41	155	0.16	13.1
42	150	0.15	14.7

**Table 2: Record of body weight before and after experiment for normal rats**

Rats	B. Wt before/ g	B. Wt after/ g
1	154	206
2	173	284
3	168	170
4	132	216
5	122	155
6	149	204
7	120	163
8	121	103
9	127	176
10	159	190
11	152	272
12	164	271

**Table 3: Record of body weight before and after experiment for diabetic rats**

Replicate	B. Wt before/ g	B. Wt after/ g
1	164	133
2	188	157
3	194	183
4	211	189
5	165	165
6	209	195
7	163	172
8	152	150
9	162	158
10	160	134
11	153	139
12	190	132

**Table 4: Body weight of normal rats at day 1, day 7 and day 14**

Rats	Day 0	Day 7	Day 14
1	154	178	206
2	173	220.5	250
3	127	150	176
4	132	190	216
5	159	179	190
6	149	170	204

**Table 5: Body weight of diabetic rats at day 1, day 7 and day 14**

Rats	Day 0	Day 7	Day 14
1	164	159	133
2	188	167	157
3	194	181	183
4	211	197	189
5	165	157	149
6	209	202	195

**Table 6: Blood glucose reading of STZ-induced rats on day 7 post-injection**

B.G.		Day 7				
Negative	Positive	5%	10%	15%	20%	
15.2	19.9	23.1	9.9	22.3	21.8	
17.4	19.6	22.6	18.3	27	18.9	
9.7	14.9	25.8	19.9	17.9	26.7	
18.2	19.8	22.9	22.8	24.3	21.9	
21.6	24.7	18.1	25.8	24.1	33.3	
33.3	25.1	18.2	27.2	25.4	20.1	

**Table 7: Period of re-epithelialisation (normal rats)**

Replicate	Negative	Positive	5% Ext	10% Ext	15% Ext	20% Ext
1	13.00	13.00	13.00	11.00	12.00	11.00
2	13.00	13.00	13.00	13.00	12.00	14.00
3	13.00	12.00	14.00	13.00	13.00	12.00
4	13.00	13.00	13.00	12.00	11.00	14.00
5	13.00	13.00	13.00	12.00	14.00	12.00
6	14.00	13.00	14.00	12.00	14.00	12.00

**Table 8: Period of re-epithelialisation (diabetic rats)**

Replicate	Negative	Positive	5%	10%	15%	20%
1	17.00	13.00	15.00	13.00	13.00	13.00
2	15.00	15.00	13.00	13.00	13.00	13.00
3	15.00	15.00	14.00	12.00	15.00	13.00
4	14.00	15.00	14.00	13.00	14.00	12.00
5	17.00	15.00	13.00	13.00	14.00	13.00
6	14.00	16.00	13.00	13.00	15.00	14.00

**Table 9: Rate of wound closure (mm<sup>2</sup>) treated with aqueous cream (normal rats)**

Replicate	Day 4	Day 8	Day 12
1	13.89	96.15	243.06
2	17.25	95.00	212.73
3	17.50	142.86	217.50
4	20.00	93.75	235.29
5	13.89	87.50	234.38
6	10.87	100.00	217.39

**Table 10: Rate of wound closure (mm<sup>2</sup>) treated with intrasite gel (normal rats)**

Replicate	Day 4	Day 8	Day 12
1	71.43	152.25	230.77
2	98.73	133.33	225.00
3	90.00	160.71	250.00
4	102.94	171.88	242.19
5	73.53	187.50	243.75
6	93.75	175.00	250.00

**Table 11: Rate of wound closure (mm<sup>2</sup>) treated with 5% mushroom extract (normal rats)**

Replicate	Day 4	Day 8	Day 12
1	37.50	152.78	214.25
2	38.82	197.37	250.00
3	39.47	157.89	212.50
4	32.00	163.89	222.22
5	44.44	194.44	250.00
6	51.09	166.30	250.00

**Table 12: Rate of wound closure (mm<sup>2</sup>) treated with 10% mushroom extract (normal rats)**

Replicate	Day 4	Day 8	Day 12
1	56.82	161.76	250.00
2	90.00	161.76	246.25
3	69.12	189.50	250.00
4	64.00	153.57	245.00
5	81.82	193.18	250.00
6	90.00	175.00	245.00

**Table 13: Rate of wound closure (mm<sup>2</sup>) treated with 15% mushroom extract (normal rats)**

Replicate	Day 4	Day 8	Day 12
1	78.13	205.63	240.63
2	57.50	150.00	239.29
3	59.09	215.91	250.00
4	56.82	185.00	250.00
5	90.00	193.18	224.98
6	43.75	204.55	238.64

**Table 14: Rate of wound closure (mm<sup>2</sup>) treated with 20% mushroom extract (normal rats)**

Replicate	Day 4	Day 8	Day 12
1	78.13	205.63	240.63
2	57.50	125.00	239.29
3	59.09	215.91	250.00
4	50.00	193.18	250.00
5	62.50	193.18	232.95
6	90.00	204.55	238.64

**Table 15: Rate of wound closure (mm<sup>2</sup>) treated with aqueous cream (diabetic rats)**

Replicate	Day 4	Day 8	Day 12
1	-125.00	32.00	125.00
2	-150.00	31.25	156.25
3	-138.24	44.12	161.76
4	-126.47	44.12	191.18
5	-105.56	39.75	138.89
6	-114.71	44.12	161.76

**Table 16: Rate of wound closure (mm<sup>2</sup>) treated with intrasite gel (diabetic rats)**

Replicate	Day 4	Day 8	Day 12
1	38.46	107.14	142.86
2	37.50	113.64	159.09
3	40.75	150.00	166.67
4	53.13	161.76	191.18
5	50.00	132.35	191.18
6	75.00	156.25	203.13

**Table 17: Rate of wound closure (mm<sup>2</sup>) treated with 5% mushroom extract (diabetic rats)**

Replicate	Day 4	Day 8	Day 12
1	-22.50	100.00	220.00
2	-18.75	107.14	178.57
3	-16.67	125.00	216.67
4	-15.63	118.75	187.50
5	-16.67	125.00	250.00
6	-16.67	150.00	250.00

**Table 18: Rate of wound closure (mm<sup>2</sup>) treated with 10% mushroom extract (diabetic rats)**

Replicate	Day 4	Day 8	Day 12
1	27.78	166.67	250.00
2	22.73	136.36	230.00
3	20.00	125.00	240.00
4	25.00	150.00	245.00
5	22.22	166.67	237.50
6	25.00	150.00	250.00

**Table 19: Rate of wound closure (mm<sup>2</sup>) treated with 15% mushroom extract (diabetic rats)**

Replicate	Day 4	Day 8	Day 12
1	16.00	125.00	225.00
2	18.42	131.58	223.68
3	27.78	111.11	222.22
4	25.00	109.38	187.50
5	17.50	100.00	200.00
6	20.00	87.50	225.00

**Table 20: Rate of wound closure (mm<sup>2</sup>) treated with 20% mushroom extract (diabetic rats)**

Replicate	Day 4	Day 8	Day 12
1	10.00	100.00	225.00
2	20.00	83.33	222.22
3	15.00	100.00	225.00
4	16.67	145.83	250.00
5	8.33	93.75	229.17
6	16.67	83.33	208.33



**Table 21: CUPRAC values at day 16 for normal rats**

Replicate	Negative	Positive	5%	10%	15%	20%
1	0.121	0.08	0.15	0.263	0.244	0.263
2	0.172	0.086	0.23	0.223	0.242	0.358
3	0.143	0.133	0.16	0.34	0.23	0.244
4	0.08	0.072	0.242	0.166	0.263	0.222
5	0.136	0.083	0.23	0.222	0.221	0.208
6	0.104	0.079	0.414	0.208	0.352	0.242

**Table 22: CUPRAC values at day 16 for diabetic rats**

Replicate	Negative	Positive	5%	10%	15%	20%
1	0.21	0.267	0.155	0.34	0.243	0.191
2	0.188	0.177	0.223	0.166	0.21	0.263
3	0.196	0.1	0.204	0.222	0.297	0.221
4	0.156	0.137	0.267	0.208	0.25	0.352
5	0.177	0.159	0.208	0.23	0.255	0.203
6	0.198	0.141	0.256	0.23	0.245	0.219

**Table 23: LHP values for normal rats**

Replicate	Negative	Positive	5%	10%	15%	20%
1	13.80	15.38	15.38	16.94	16.44	18.69
2	15.49	17.75	17.75	15.38	13.25	17.00
3	15.96	16.50	16.50	12.69	15.94	13.44
4	16.99	13.25	17.00	18.19	12.88	14.94
5	14.82	15.94	15.88	16.75	16.75	15.06
6	15.97	13.44	14.44	16.00	22.25	15.00

**Table 24: LHP values for diabetic rats**

Replicate	Negative	Positive	5%	10%	15%	20%
1	21.31	21.75	21.75	20.13	21.00	13.94
2	20.50	21.44	19.94	26.25	19.00	24.38
3	20.31	13.56	20.25	18.19	28.19	21.25
4	27.06	13.06	23.69	19.25	36.50	36.13
5	22.30	23.19	21.69	20.90	23.88	22.56
6	22.30	18.60	22.25	20.96	25.70	22.31

**Table 25: AOPP values for normal rats**

Replicate	Negative	Positive	5%	10%	15%	20%
1	288	260	212	331	159	229
2	292	280	286	265	345	231
3	256	265	297	149	325	175
4	253	305	275	261	146	264
5	301	217	290	241	369	227
6	335	291	304	204	320	230

**Table 26: AOPP values for diabetic rats**

Replicate	Negative	Positive	5%	10%	15%	20%
1	811	598	680	576	312	564
2	550	824	560	508	455	559
3	506	598	756	459	719	846
4	534	344	555	343	500	390
5	730	800	350	760	732	355
6	560	556	431	556	550	505