

LAMPIRAN

LAMPIRAN 1 - Lembar Persetujuan Etik



KOMISI ETIK RISET
FAKULTAS KEDOKTERAN
UNIVERSITAS TRISAKTI
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PERSETUJUAN ETIK *Ethical Clearance* Nomor: 135/KER/FK/XII/2018

Komisi Etik Riset Fakultas Kedokteran Universitas Trisakti setelah mempelajari dengan seksama dan mendengarkan penjelasan dari peneliti utama tentang kemungkinan adanya dampak etis terhadap subyek riset, masyarakat dan lingkungan, menetapkan penelitian dengan judul:

"PENGARUH PEMBERIAN EKSTRAK BUAH KRANBERI (*Vaccinium macrocarpon* Aiton) TERHADAP STRES OKSIDATIF PADA ORGAN TIKUS *Sprague Dawley* (PARU, JANTUNG, HATI, GINJAL DAN OTAK) YANG DIINDUKSI HIPOKSIA"

Peneliti Utama : Kelvin

Lembaga/Tempat penelitian : FK Universitas Tarumanagara

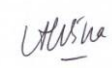
Dinyatakan memenuhi persyaratan etik untuk dilaksanakan.

Jakarta, 18 Desember 2018

Ketua


Prof. DR. dr. Adi Hidayat, MS

Sekretaris


dr. Alvina SpPK

LAMPIRAN 2 - Identifikasi LIPI Buah Kranberi



LEMBAGA ILMU PENGETAHUAN INDONESIA
(INDONESIAN INSTITUTE OF SCIENCES)
PUSAT PENELITIAN BIOLOGI
(RESEARCH CENTER FOR BIOLOGY)

Cibinong Science Center, Jl. Raya Jakarta - Bogor KM. 46 Cibinong 16911
Telp. (+62 21) 87907636 - 87907604, Fax. 87907612
Website : www.biologi.lipi.go.id



Nomor : 1292/IPH.1.01/If.07/VIII/2018
Lampiran : -
Perihal : Hasil identifikasi/determinasi Tumbuhan

Cibinong, 2 Agustus 2018

Kepada Yth.
Bpk./Ibu/Sdr(i). **Chindy Tjandra**
Mhs. Univ. Tarumanagara
Jl. Letjend S. Parman No.1
Jakarta - 11440

Dengan hormat,

Bersama ini kami sampaikan hasil identifikasi/determinasi tumbuhan yang Saudara kirimkan ke "Herbarium Bogoriense", Bidang Botani Pusat Penelitian Biologi-LIPI Bogor, adalah sebagai berikut :

No.	No. Kol.	Jenis	Suku
1	Cranberry	<i>Vaccinium macrocarpon</i> Aiton	Ericaceae

Demikian, semoga berguna bagi Saudara.

Kepala Bidang Botani
Pusat Penelitian Biologi-LIPI,

Dr. Joeni Setijo Rahaioe
NIP. 196706241993032004

C:\Users\windows 7\Desktop\dokumen lia\Ident 2018\Chindy Tjandra.doc\Ismail-Michael

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LAMPIRAN 3 - Dokumentasi Buah Kranberi

Buah kranberi utuh



Pemotongan buah kranberi



Pengeringan buah kranberi



Maserasi buah kranberi



Evaporasi buah kranberi



LAMPIRAN 4 - Pencekohan Tikus

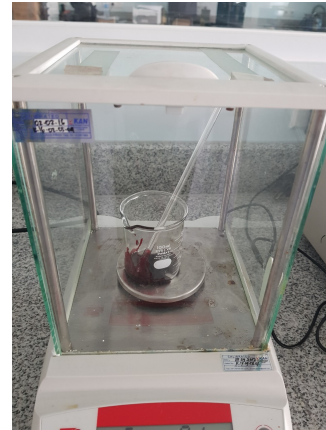


LAMPIRAN 5 - Peralatan Laboratorium

Alat sentrifugasi berkecepatan tinggi
model 20PR-5, Hitachi-Jepang



Timbangan



Kuvet

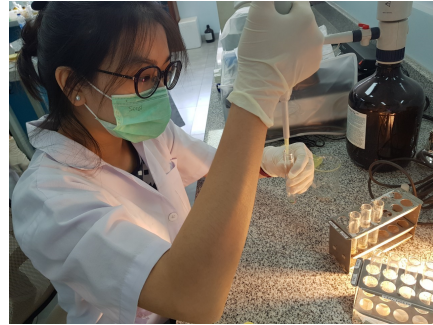


LAMPIRAN 6 - Dokumentasi Labroratorium

Pembedahan tikus



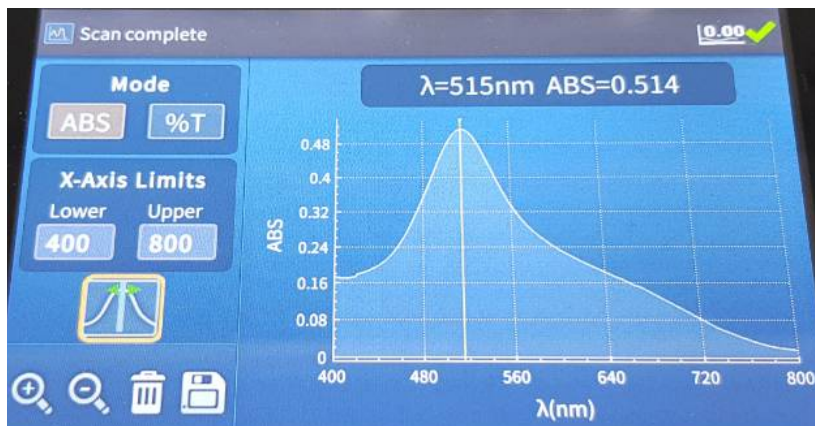
DPPH



BSLT



LAMPIRAN 7 - Uji Kapasitas Antioksidan DPPH



1. Panjang Gelombang Optimum Uji Kapasitas Antioksidan DPPH

Uji Regresi Linier DPPH

Best-fit values	
Slope	0,8152
Y-intercept	9,436
X-intercept	-11,58
1/slope	1,227
Std. Error	
Slope	0,1416
Y-intercept	8,135
95% Confidence Intervals	
Slope	0,3645 to 1,266
Y-intercept	-16,45 to 35,32
X-intercept	-91,17 to 13,82
Goodness of Fit	
R square	0,9170
Sy.x	8,956
Is slope significantly non-zero?	
F	33,14
DFn, DFd	1, 3
P value	0,0104
Deviation from zero?	Significant
Equation	$Y = 0,8152 * X + 9,436$
Data	
Number of X values	5
Maximum number of Y replicates	1
Total number of values	5
Number of missing values	0

2. Konsentrasi dan Persentase Inhibisi (%) dan IC₅₀ Ekstrak Buah Kranberi

Konsentrasi (µg/mL)	Persentase Inhibisi (%)	IC ₅₀ (µg/mL)
10	12.45	49.760
30	31.91	
50	63.23	
70	66.93	
90	76.46	

3. Konsentrasi dan Persentase Inhibisi (%) Asam Askorbat

Konsentrasi (µg/mL)	Persentase Inhibisi (%)	IC ₅₀ (µg/mL)
2	32.68	4.780
4	43.97	
6	58.56	
8	70.43	
10	83.27	

4. Uji Regresi Linier antara Konsentrasi Asam Askorbat dengan % Inhibisi

Slope	0,1258
Y-intercept	0,8347
95% Confidence Intervals	
Slope	5,982 to 6,782
Y-intercept	16,83 to 22,15
X-intercept	-3,687 to -2,492
Goodness of Fit	
R square	0,9988
Sy.x	0,7958
Is slope significantly non-zero?	
F	2572
DFn, DFd	1, 3
P value	<0,0001
Deviation from zero?	Significant
Equation	Y = 6,382*X + 19,49
Data	
Number of X values	5
Maximum number of Y replicates	1

LAMPIRAN 8 – Pengukuran Fenolik Total

Konsentrasi (µg/mL)	Absorbansi
300	0,344
400	0,421
500	0,469
600	0,531
700	0,654

Tabel 4.4 Absorbansi Tanin Berdasarkan Konsentrasi

Best-fit values	
Slope	0,0007300
Y-intercept	0,1188
X-intercept	-162,7
1/slope	1370
Std. Error	
Slope	7,332e-005
Y-intercept	0,03810
95% Confidence Intervals	
Slope	0,0004967 to 0,0009633
Y-intercept	-0,002447 to 0,2400
X-intercept	-478,9 to 2,564
Goodness of Fit	
R square	0,9706
Sy.x	0,02319
Is slope significantly non-zero?	
F	99,13
DFn, DFd	1, 3
P value	0,0022
Deviation from zero?	Significant
Equation	$Y = 0,0007300 * X + 0,1188$
Data	
Number of X values	5
Maximum number of Y replicates	1
Total number of values	5
Number of missing values	0

LAMPIRAN 9 – Pengukuran Alkaloid Total

Konsentrasi (µg/mL)	Absorbansi
20	0.088
40	0.123
60	0.134
80	0.178
100	0.232

Tabel 4.6 Absorbansi *Berberine Chloride* Berdasarkan Konsentrasi

Sampel	Konsentrasi (µg/mL)	Rata-rata (µg/mL)
I	60.529	66.118
II	71.706	

Tabel 4.7 Kadar Alkaloid Ekstrak Buah Kranberi

Best-fit values	
Slope	0,001715
Y-intercept	0,04810
X-intercept	-28,05
1/slope	583,1
Std. Error	
Slope	0,0002174
Y-intercept	0,01442
95% Confidence Intervals	
Slope	0,001023 to 0,002407
Y-intercept	0,002209 to 0,09399
X-intercept	-89,38 to -0,9434
Goodness of Fit	
R square	0,9540
Sy.x	0,01375
Is slope significantly non-zero?	
F	62,24
DFn, DFd	1, 3
P value	0,0042
Deviation from zero?	Significant
Equation	$Y = 0,001715 * X + 0,04810$
Data	
Number of X values	5
Maximum number of Y replicates	1
Total number of values	5
Number of missing values	0

LAMPIRAN 10 – Uji Toksisitas Buah Kranberi

Log Konsentrasi	Jumlah Larva Hidup	Jumlah Larva Mati	Akumulasi Hidup	Akumulasi Mati	Akumulasi Mati/Total	Angka Mortalitas (%)
1	17	3	41	3	3/44	6.82
2	14	6	24	9	9/33	27.27
2.70	9	11	10	20	20/30	66.67
3	1	19	1	39	39/40	97.50

Tabel 4.8 Angka Mortalitas dan LC₅₀ Berdasarkan Konsentrasi Ekstrak Buah Kranberi

Best-fit values	
Slope	43,37
Y-intercept	-44,76
X-intercept	1,032
1/slope	0,02306
Std. Error	
Slope	9,891
Y-intercept	22,82
95% Confidence Intervals	
Slope	0,8133 to 85,93
Y-intercept	-142,9 to 53,41
X-intercept	-59,02 to 1,851
Goodness of Fit	
R square	0,9058
Sy.x	15,22
Is slope significantly non-zero?	
F	19,23
DFn, DFd	1, 2
P value	0,0483
Deviation from zero?	Significant
Equation	$Y = 43,37 * X - 44,76$
Data	
Number of X values	4
Maximum number of Y replicates	1
Total number of values	4
Number of missing values	0

LAMPIRAN 11 - Hasil Absorbansi GSH Jantung

Tabel Absorbansi Standar GSH

	Kadar Konsentrasi ($\mu\text{g/mL}$)	Nilai Absorbansi
Blanko	0	0.0290
S1	1	0.0040
S2	2	0.0200
S3	4	0.0750
S4	5	0.0940
S5	10	0.2140

Tabel Hasil Uji Nilai Absoransi GSH pada Jantung Perlakuan Normoksia

Tikus	Absorbansi Pertama	Absorbansi Kedua	Rata-rata Absorbansi	Kadar GSH ($\mu\text{g/mL}$)
1	0.049	0.047	0.048	2.992
2	0.038	0.032	0.035	2.440
3	0.048	0.046	0.047	2.949
4	0.035	0.031	0.033	2.356
	Rata-rata		0.041	2.684

Tabel Hasil Uji Nilai Absoransi GSH pada Jantung Perlakuan Hipoksia 1 Hari

Tikus	Absorbansi Pertama	Absorbansi Kedua	Rata-rata Absorbansi	Kadar GSH ($\mu\text{g/mL}$)
1	0.045	0.043	0.026	2.059
2	0.033	0.031	0.025	2.017
3	0.036	0.032	0.034	2.398
4	0.047	0.045	0.032	2.314
	Rata-rata		0.029	2.197

Tabel Hasil Uji Nilai Absoransi GSH pada Jantung Perlakuan Hipoksia 7 Hari

Tikus	Absorbansi Pertama	Absorbansi Kedua	Rata-rata Absorbansi	Kadar GSH (µg/mL)
1	0.029	0.023	0.026	2.059
2	0.026	0.020	0.023	1.932
3	0.038	0.034	0.029	2.186
24	0.041	0.035	0.031	2.271
	Rata-rata		0.027	2.112

Tabel Hasil Uji Nilai Absoransi GSH pada Jantung Perlakuan Hipoksia 14 Hari

Tikus	Absorbansi Pertama	Absorbansi Kedua	Rata-rata Absorbansi	Kadar GSH (µg/mL)
1	0.022	0.020	0.021	1.847
2	0.025	0.021	0.023	1.932
3	0.021	0.019	0.020	1.805
4	0.035	0.033	0.030	2.229
	Rata-rata		0.024	1.953

Tabel Hasil Kontrol Nilai Absoransi GSH pada Jantung Perlakuan Normoksia

Tikus	Absorbansi Pertama	Absorbansi Kedua	Rata-rata Absorbansi	Kadar GSH (µg/mL)
1	0.037	0.033	0.035	2.440
2	0.029	0.037	0.033	2.356
3	0.027	0.031	0.029	2.186
4	0.032	0.025	0.028	2.144
	Rata-rata		0.031	2.282

Tabel Hasil Kontrol Nilai Absoransi GSH pada Jantung Perlakuan Hipoksia 1 Hari

Tikus	Absorbansi Pertama	Absorbansi Kedua	Rata-rata Absorbansi	Kadar GSH (µg/mL)
1	0.028	0.022	0.025	2.017
2	0.031	0.026	0.028	2.144
3	0.024	0.029	0.026	2.059
4	0.029	0.030	0.0295	2.208
	Rata-rata		0.027	2.107

Tabel Hasil Kontrol Nilai Absoransi GSH pada Jantung Perlakuan Hipoksia 7 Hari

Tikus	Absorbansi Pertama	Absorbansi Kedua	Rata-rata Absorbansi	Kadar GSH (µg/mL)
1	0.024	0.020	0.022	1.890
2	0.030	0.024	0.027	2.102
3	0.022	0.028	0.025	2.017
4	0.020	0.027	0.023	1.932
	Rata-rata		0.024	1.985

Tabel Hasil Kontrol Nilai Absoransi GSH pada Jantung Perlakuan Hipoksia 14 Hari

Tikus	Absorbansi Pertama	Absorbansi Kedua	Rata-rata Absorbansi	Kadar GSH (µg/mL)
1	0.024	0.017	0.020	1.805
2	0.015	0.021	0.018	1.720
3	0.020	0.013	0.016	1.636
4	0.018	0.011	0.014	1.551
	Rata-rata		0.017	1.678

Kelompok	Nilai Rata-Rata Absorban Kontrol (A)	Kadar GSH Kontrol (mg/L)	Nilai Rata-Rata Absorban Uji (A)	Kadar GSH Uji (mg/L)
Normoksia	0.041	2.282	0.031	2.684
Hipoksia 1 hari	0.029	2.107	0.027	2.197
Hipoksia 7 hari	0.027	1.985	0.024	2.112
Hipoksia 14 hari	0.024	1.678	0.017	1.953

LAMPIRAN 12. Hasil Absorbansi GSH Darah

			Absorban 1	Absorban 2	Rata-Rata Absorban	Rata-Rata Total
Normoksia	Kontrol	Tikus 1	0.061	0.060	0.059	0.062
		Tikus 2	0.067	0.061	0.064	
		Tikus 3	0.053	0.069	0.061	
		Tikus 4	0.063	0.067	0.065	
	Cekok	Tikus 1	0.091	0.085	0.088	0.092
		Tikus 2	0.089	0.099	0.094	
		Tikus 3	0.096	0.09	0.081	
		Tikus 4	0.087	0.091	0.090	
Hipoksia 1 hari	Kontrol	Tikus 1	0.055	0.047	0.051	0.056
		Tikus 2	0.057	0.061	0.059	
		Tikus 3	0.055	0.061	0.058	
		Tikus 4	0.054	0.060	0.057	
	Cekok	Tikus 1	0.083	0.089	0.086	0.086
		Tikus 2	0.088	0.086	0.087	
		Tikus 3	0.081	0.087	0.084	
		Tikus 4	0.090	0.086	0.088	
Hipoksia 7 hari	Kontrol	Tikus 1	0.053	0.055	0.054	0.055
		Tikus 2	0.056	0.046	0.051	
		Tikus 3	0.060	0.054	0.057	
		Tikus 4	0.055	0.063	0.059	
	Cekok	Tikus 1	0.075	0.087	0.081	0.084
		Tikus 2	0.084	0.088	0.086	
		Tikus 3	0.084	0.080	0.082	
		Tikus 4	0.086	0.090	0.088	
Hipoksia 14 hari	Kontrol	Tikus 1	0.047	0.053	0.050	0.054
		Tikus 2	0.059	0.055	0.057	
		Tikus 3	0.063	0.055	0.059	
		Tikus 4	0.048	0.054	0.051	
	Cekok	Tikus 1	0.088	0.082	0.085	0.083
		Tikus 2	0.077	0.085	0.081	
		Tikus 3	0.077	0.083	0.080	
		Tikus 4	0.088	0.083	0.086	

Rata-Rata Kadar GSH Jantung		
Perlakuan	Kontrol	Uji
Normoksia	0.031	0.041
Hipoksia 1 hari	0.027	0.039
Hipoksia 3 hari	0.024	0.031
Hipoksia 14 hari	0.017	0.025

Rata-Rata Kadar GSH Darah		
Perlakuan	Kontrol	Uji
Normoksia	0.092	0.062
Hipoksia 1 hari	0.086	0.056
Hipoksia 3 hari	0.084	0.055
Hipoksia 14 hari	0.083	0.054

LAMPIRAN 13 - Uji Statistik

Kadar GSH Darah Kontrol dan Uji

1. Kadar GSH Darah Kontrol Hipoksia 1 Hari

Table Analyzed	Darah K-
Column B	Hipoksia 1 hari
vs.	vs,
Column A	Normoksia
Unpaired t test	
P value	0,0380
P value summary	*
Significantly different (P < 0.05)?	Yes
One- or two-tailed P value?	Two-tailed
t, df	t=2,650, df=6
How big is the difference?	
Mean of column A	0,06225
Mean of column B	0,05625
Difference between means (B - A) $\pm$ SEM	-0,006000 $\pm$ 0,002264
95% confidence interval	-0,01154 to -0,0004606
R squared (eta squared)	0,5393
F test to compare variances	
F, DF _n , Df _d	1,703, 3, 3
P value	0,6725
P value summary	ns
Significantly different (P < 0.05)?	No
Data analyzed	
Sample size, column A	4
Sample size, column B	4

2. Kadar GSH Darah Kontrol Hipoksia 7 Hari

Table Analyzed	Darah K-
Column C	Hipoksia 7 hari
vs.	vs,
Column A	Normoksia
Unpaired t test	
P value	0,0200
P value summary	*
Significantly different (P < 0.05)?	Yes
One- or two-tailed P value?	Two-tailed
t, df	t=3,144, df=6
How big is the difference?	
Mean of column A	0,06225
Mean of column C	0,05525
Difference between means (C - A) $\pm$ SEM	-0,007000 $\pm$ 0,002227
95% confidence interval	-0,01245 to -0,001551
R squared (eta squared)	0,6222
F test to compare variances	
F, DF _n , Df _d	1,615, 3, 3
P value	0,7032
P value summary	ns
Significantly different (P < 0.05)?	No

Data analyzed	
Sample size, column A	4
Sample size, column C	4

3. Kadar GSH Darah Kontrol Hipoksia 14 Hari

Table Analyzed	Darah K-
Column D	Hipoksia 14 hari
vs.	vs,
Column A	Normoksia
Unpaired t test	
P value	0,0219
P value summary	*
Significantly different (P < 0.05)?	Yes
One- or two-tailed P value?	Two-tailed
t, df	t=3,070, df=6
How big is the difference?	
Mean of column A	0,06225
Mean of column D	0,05425
Difference between means (D - A) $\pm$ SEM	-0,008000 $\pm$ 0,002606
95% confidence interval	-0,01438 to -0,001623
R squared (eta squared)	0,6110
F test to compare variances	
F, DF _n , D _{fd}	2,582, 3, 3
P value	0,4565
P value summary	ns
Significantly different (P < 0.05)?	No
Data analyzed	
Sample size, column A	4
Sample size, column D	4

4. Kadar GSH Darah Uji Hipoksia 1 Hari

Table Analyzed	Darah K+
Column B	Hipoksia 1 hari
vs.	vs,
Column A	Normoksia
Unpaired t test	
P value	0,0456
P value summary	*
Significantly different (P < 0.05)?	Yes
One- or two-tailed P value?	Two-tailed
t, df	t=2,514, df=6
How big is the difference?	
Mean of column A	0,09200
Mean of column B	0,08625
Difference between means (B - A) $\pm$ SEM	-0,005750 $\pm$ 0,002287
95% confidence interval	-0,01135 to -0,0001546
R squared (eta squared)	0,5131
F test to compare variances	
F, DF _n , D _{fd}	6,171, 3, 3
P value	0,1692
P value summary	ns

Significantly different ($P < 0.05$)?	No
Data analyzed	
Sample size, column A	4
Sample size, column B	4

5. Kadar GSH Darah Uji Hipoksia 7 Hari

Table Analyzed	Darah K+
Column C	Hipoksia 7 hari
vs.	vs,
Column A	Normoksia
Unpaired t test	
P value	0,0280
P value summary	*
Significantly different ($P < 0.05$)?	Yes
One- or two-tailed P value?	Two-tailed
t, df	t=2,882, df=6
How big is the difference?	
Mean of column A	0,09200
Mean of column C	0,08425
Difference between means (C - A) $\pm$ SEM	-0,007750 $\pm$ 0,002689
95% confidence interval	-0,01433 to -0,001171
R squared (eta squared)	0,5807
F test to compare variances	
F, DF _n , Df _d	1,649, 3, 3
P value	0,6913
P value summary	ns
Significantly different ($P < 0.05$)?	No
Data analyzed	
Sample size, column A	4
Sample size, column C	4

6. Kadar GSH Darah Uji Hipoksia 14 Hari

Table Analyzed	Darah K+
Column D	Hipoksia 14 hari
vs.	vs,
Column A	Normoksia
Unpaired t test	
P value	0,0131
P value summary	*
Significantly different ($P < 0.05$)?	Yes
One- or two-tailed P value?	Two-tailed
t, df	t=3,486, df=6
How big is the difference?	
Mean of column A	0,09200
Mean of column D	0,08300
Difference between means (D - A) $\pm$ SEM	-0,009000 $\pm$ 0,002582
95% confidence interval	-0,01532 to -0,002682
R squared (eta squared)	0,6694
F test to compare variances	
F, DF _n , Df _d	2,077, 3, 3
P value	0,5636

P value summary	ns
Significantly different ($P < 0.05$)?	No
Data analyzed	
Sample size, column A	4
Sample size, column D	4

7. Perbandingan Kadar GSH Darah Kontrol dan Uji Normoksia

Table Analyzed	Normoksia Darah K+ dan K-
Column B	Normoksia K+
vs.	vs,
Column A	Normoksia K-
Unpaired t test	
P value	<0,0001
P value summary	****
Significantly different ($P < 0.05$)?	Yes
One- or two-tailed P value?	Two-tailed
t, df	t=11,76, df=6
How big is the difference?	
Mean of column A	0,06225
Mean of column B	0,09200
Difference between means (B - A) $\pm$ SEM	0,02975 $\pm$ 0,002529
95% confidence interval	0,02356 to 0,03594
R squared (eta squared)	0,9584
F test to compare variances	
F, DFn, Dfd	2,374, 3, 3
P value	0,4963
P value summary	ns
Significantly different ($P < 0.05$)?	No
Data analyzed	
Sample size, column A	4
Sample size, column B	4

8. Perbandingan Kadar GSH Darah Kontrol dan Uji Hipoksia 1 Hari

Table Analyzed	Hipoksia 1 Darah K+ dan K-
Column B	Hipoksia K+
vs.	vs,
Column A	Hipoksia K-
Unpaired t test	
P value	<0,0001
P value summary	****
Significantly different ($P < 0.05$)?	Yes
One- or two-tailed P value?	Two-tailed
t, df	t=15,08, df=6
How big is the difference?	
Mean of column A	0,05625
Mean of column B	0,08625
Difference between means (B - A) $\pm$ SEM	0,03000 $\pm$ 0,001990
95% confidence interval	0,02513 to 0,03487
R squared (eta squared)	0,9743
F test to compare variances	

F, DFn, Dfd	4,429, 3, 3
P value	0,2531
P value summary	ns
Significantly different (P < 0.05)?	No
Data analyzed	
Sample size, column A	4
Sample size, column B	4

9. Perbandingan Kadar GSH Darah Kontrol dan Uji Hipoksia 7 Hari

Table Analyzed	Hipoksia 7 Darah K+ dan K-
Column B	Hipoksia K+
vs.	vs,
Column A	Hipoksia K-
Unpaired t test	
P value	<0,0001
P value summary	****
Significantly different (P < 0.05)?	Yes
One- or two-tailed P value?	Two-tailed
t, df	t=12,05, df=6
How big is the difference?	
Mean of column A	0,05525
Mean of column B	0,08425
Difference between means (B - A) ± SEM	0,02900 ± 0,002407
95% confidence interval	0,02311 to 0,03489
R squared (eta squared)	0,9603
F test to compare variances	
F, DFn, Dfd	1,122, 3, 3
P value	0,9268
P value summary	ns
Significantly different (P < 0.05)?	No
Data analyzed	
Sample size, column A	4
Sample size, column B	4

10. Perbandingan Kadar GSH Darah Kontrol dan Uji Hipoksia 14 Hari

Table Analyzed	Hipoksia 14 Darah K+ dan K-
Column B	Hipoksia K+
vs.	vs,
Column A	Hipoksia K-
Unpaired t test	
P value	<0,0001
P value summary	****
Significantly different (P < 0.05)?	Yes
One- or two-tailed P value?	Two-tailed
t, df	t=10,82, df=6
How big is the difference?	
Mean of column A	0,05425
Mean of column B	0,08300
Difference between means (B - A) ± SEM	0,02875 ± 0,002658
95% confidence interval	0,02225 to 0,03525
R squared (eta squared)	0,9512

F test to compare variances	
F, DF _n , DF _d	2,260, 3, 3
P value	0,5205
P value summary	ns
Significantly different ($P < 0.05$)?	No
Data analyzed	
Sample size, column A	4
Sample size, column B	4

LAMPIRAN 14 – Uji Statistik

Kadar GSH Jantung Kontrol dan Uji

1. Kadar GSH Jantung Kontrol Hipoksia 1 Hari

Table Analyzed	Jantung K-
Column B	Hipoksia 1 hari
vs.	vs,
Column A	Normoksia
Unpaired t test	
P value	0,0431
P value summary	*
Significantly different (P < 0.05)?	Yes
One- or two-tailed P value?	Two-tailed
t, df	t=2,556, df=6
How big is the difference?	
Mean of column A	0,03150
Mean of column B	0,02525
Difference between means (B - A) ± SEM	-0,006250 ± 0,002445
95% confidence interval	-0,01223 to -0,0002667
R squared (eta squared)	0,5213
F test to compare variances	
F, DFn, Dfd	1,657, 3, 3
P value	0,6883
P value summary	ns
Significantly different (P < 0.05)?	No
Data analyzed	
Sample size, column A	4
Sample size, column B	4

2. Kadar GSH Jantung Kontrol Hipoksia 7 Hari

Table Analyzed	Jantung K-
Column C	Hipoksia 7 hari
vs.	vs,
Column A	Normoksia
Unpaired t test	
P value	0,0086
P value summary	**
Significantly different (P < 0.05)?	Yes
One- or two-tailed P value?	Two-tailed
t, df	t=3,834, df=6
How big is the difference?	
Mean of column A	0,03150
Mean of column C	0,02450
Difference between means (C - A) ± SEM	-0,007000 ± 0,001826
95% confidence interval	-0,01147 to -0,002533
R squared (eta squared)	0,7101
F test to compare variances	
F, DFn, Dfd	2,077, 3, 3
P value	0,5636
P value summary	ns
Significantly different (P < 0.05)?	No

Data analyzed	
Sample size, column A	4
Sample size, column C	4

3. Kadar GSH Jantung Kontrol Hipoksia 14 Hari

Table Analyzed	Jantung K-
Column D	Hipoksia 14 hari
vs.	vs,
Column A	Normoksia
Unpaired t test	
P value	0,0003
P value summary	***
Significantly different (P < 0.05)?	Yes
One- or two-tailed P value?	Two-tailed
t, df	t=7,668, df=6
How big is the difference?	
Mean of column A	0,03150
Mean of column D	0,01750
Difference between means (D - A) $\pm$ SEM	-0,01400 $\pm$ 0,001826
95% confidence interval	-0,01847 to -0,009533
R squared (eta squared)	0,9074
F test to compare variances	
F, DF _n , D _{df}	2,077, 3, 3
P value	0,5636
P value summary	ns
Significantly different (P < 0.05)?	No
Data analyzed	
Sample size, column A	4
Sample size, column D	4

4. Kadar GSH Jantung Uji Hipoksia 1 Hari

Table Analyzed	Jantung K+
Column B	Hipoksia 1 hari
vs.	vs,
Column A	Normoksia
Unpaired t test	
P value	0,0433
P value summary	*
Significantly different (P < 0.05)?	Yes
One- or two-tailed P value?	Two-tailed
t, df	t=2,553, df=6
How big is the difference?	
Mean of column A	0,04075
Mean of column B	0,02925
Difference between means (B - A) $\pm$ SEM	-0,01150 $\pm$ 0,004505
95% confidence interval	-0,02252 to -0,0004776
R squared (eta squared)	0,5207
F test to compare variances	
F, DF _n , D _{df}	3,145, 3, 3
P value	0,3719
P value summary	ns

Significantly different ($P < 0.05$)?	No
Data analyzed	
Sample size, column A	4
Sample size, column B	4

5. Kadar GSH Jantung Uji Hipoksia 7 Hari

Table Analyzed	Jantung K+
Column C	Hipoksia 7 hari
vs.	vs,
Column A	Normoksia
Unpaired t test	
P value	0,0200
P value summary	*
Significantly different ($P < 0.05$)?	Yes
One- or two-tailed P value?	Two-tailed
t, df	t=3,142, df=6
How big is the difference?	
Mean of column A	0,04075
Mean of column C	0,02725
Difference between means (C - A) $\pm$ SEM	-0,01350 $\pm$ 0,004296
95% confidence interval	-0,02401 to -0,002987
R squared (eta squared)	0,6220
F test to compare variances	
F, DF _n , Dfd	5,027, 3, 3
P value	0,2177
P value summary	ns
Significantly different ($P < 0.05$)?	No
Data analyzed	
Sample size, column A	4
Sample size, column C	4

6. Kadar GSH Jantung Uji Hipoksia 14 Hari

Table Analyzed	Jantung K+
Column D	Hipoksia 14 hari
vs.	vs,
Column A	Normoksia
Unpaired t test	
P value	0,0088
P value summary	**
Significantly different ($P < 0.05$)?	Yes
One- or two-tailed P value?	Two-tailed
t, df	t=3,812, df=6
How big is the difference?	
Mean of column A	0,04075
Mean of column D	0,02350
Difference between means (D - A) $\pm$ SEM	-0,01725 $\pm$ 0,004525
95% confidence interval	-0,02832 to -0,006177
R squared (eta squared)	0,7077
F test to compare variances	
F, DF _n , Dfd	3,029, 3, 3
P value	0,3871

P value summary	ns
Significantly different ($P < 0.05$)?	No
Data analyzed	
Sample size, column A	4
Sample size, column D	4

7. Perbandingan Kadar GSH Jantung Kontrol dan Uji Normoksia

Table Analyzed	Normoksia Jaringan K+ dan K-
Column B	Normoksia K+
vs.	vs,
Column A	Normoksia K-
Unpaired t test	
P value	0,0699
P value summary	ns
Significantly different ($P < 0.05$)?	No
One- or two-tailed P value?	Two-tailed
t, df	t=2,202, df=6
How big is the difference?	
Mean of column A	0,03150
Mean of column B	0,04075
Difference between means (B - A) $\pm$ SEM	0,009250 $\pm$ 0,004201
95% confidence interval	-0,001029 to 0,01953
R squared (eta squared)	0,4469
F test to compare variances	
F, DFn, Dfd	6,843, 3, 3
P value	0,1485
P value summary	ns
Significantly different ($P < 0.05$)?	No
Data analyzed	
Sample size, column A	4
Sample size, column B	4

8. Perbandingan Kadar GSH Jantung Kontrol dan Uji Hipoksia 1 Hari

Table Analyzed	Hipoksia 1 Hari Jaringan K+ dan K-
Column B	Hipoksia K+
vs.	vs,
Column A	Hipoksia K-
Unpaired t test	
P value	0,2221
P value summary	ns
Significantly different ($P < 0.05$)?	No
One- or two-tailed P value?	Two-tailed
t, df	t=1,362, df=6
How big is the difference?	
Mean of column A	0,02525
Mean of column B	0,02925
Difference between means (B - A) $\pm$ SEM	0,004000 $\pm$ 0,002937
95% confidence interval	-0,003186 to 0,01119
R squared (eta squared)	0,2362
F test to compare variances	
F, DFn, Dfd	1,313, 3, 3

P value	0,8283
P value summary	ns
Significantly different (P < 0.05)?	No
Data analyzed	
Sample size, column A	4
Sample size, column B	4

9. Perbandingan Kadar GSH Jantung Kontrol dan Uji Hipoksia 7 Hari

Table Analyzed	Hipoksia 7 Hari Jaringan K+ dan K-
Column B	Hipoksia K+
vs.	vs,
Column A	Hipoksia K-
Unpaired t test	
P value	0,2255
P value summary	ns
Significantly different (P < 0.05)?	No
One- or two-tailed P value?	Two-tailed
t, df	t=1,351, df=6
How big is the difference?	
Mean of column A	0,02450
Mean of column B	0,02725
Difference between means (B - A) ± SEM	0,002750 ± 0,002036
95% confidence interval	-0,002232 to 0,007732
R squared (eta squared)	0,2331
F test to compare variances	
F, DFn, Dfd	2,827, 3, 3
P value	0,4161
P value summary	ns
Significantly different (P < 0.05)?	No
Data analyzed	
Sample size, column A	4
Sample size, column B	4

10. Perbandingan Kadar GSH Jantung Kontrol dan Uji Hipoksia 14 Hari

Table Analyzed	Hipoksia 14 Hari Jaringan K+ dan K-
Column B	Hipoksia K+
vs.	vs,
Column A	Hipoksia K-
Unpaired t test	
P value	0,0672
P value summary	ns
Significantly different (P < 0.05)?	No
One- or two-tailed P value?	Two-tailed
t, df	t=2,230, df=6
How big is the difference?	
Mean of column A	0,01775
Mean of column B	0,02350
Difference between means (B - A) ± SEM	0,005750 ± 0,002578
95% confidence interval	-0,0005580 to 0,01206
R squared (eta squared)	0,4533

F test to compare variances	
F, DFn, Dfd	3,253, 3, 3
P value	0,3585
P value summary	ns
Significantly different ($P < 0.05$)?	No
Data analyzed	
Sample size, column A	4
Sample size, column B	4

LAMPIRAN 15 – Uji Statistik

1. Korelasi Kadar GSH Darah dan Jantung Kontrol dengan Uji Pearson

Pearson r	
r	0,8932
95% confidence interval	-0,4797 to 0,9978
R squared	0,7977
P value	
P (two-tailed)	0,1068
P value summary	ns
Significant? (alpha = 0.05)	No
Number of XY Pairs	4

2. Korelasi Kadar GSH Darah dan Jantung Uji dengan Uji Pearson

Pearson r	
r	0,9954
95% confidence interval	0,7934 to 0,9999
R squared	0,9909
P value	
P (two-tailed)	0,0046
P value summary	**
Significant? (alpha = 0.05)	Yes
Number of XY Pairs	4

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