

LAMPIRAN

Lampiran 1. *Ethical Clearance*

**KOMISI BIOETIKA PENELITIAN KEDOKTERAN/KESEHATAN
FAKULTAS KEDOKTERAN
UNIVERSITAS ISLAM SULTAN AGUNG SEMARANG**
Sekretariat : Gedung C Lantai I Fakultas Kedokteran Unissula
Jl. Raya Kaligawe Km 4 Semarang, Telp. 024-6583584, Fax 024-6594366

Ethical Clearance

No. 527/VIII/2019/Komisi Bioetik


Komisi Bioetika Penelitian Kedokteran/Kesehatan Fakultas Kedokteran Universitas Islam Sultan Agung Semarang, setelah melakukan pengkajian atas usulan penelitian yang berjudul :

**POTENSI SERBUK JAMUR TIRAM PUTIH (*Pleurotusostreatus*)-KAYA VITAMIN D
TERHADAP KADAR GULA DARAH, PLASMA INSULIN DAN KADAR TNF- α PADA
TIKUS DIABETES MELITUS TIPE 2**
Studi eksperimental pada Tikus Jantan Galur Wistar yang diinduksi *Streptozotocin*-NA

Peneliti Utama : Siti Nurul Hasanah
Pembimbing : Dr. dr. Hj. Chodidjah, M.Kes
Dr. Dra. Atina Husaana, M.Si., Apt
Tempat Penelitian : Laboratorium UNNES
Laboratorium UNISSULA

dengan ini menyatakan bahwa usulan penelitian diatas telah memenuhi prasyarat etik penelitian. Oleh karena itu Komisi Bioetika merekomendasikan agar penelitian ini dapat dilaksanakan dengan mempertimbangkan prinsip-prinsip yang dinyatakan dalam Deklarasi Helsinki dan panduan yang tertuang dalam Pedoman Nasional Etik Penelitian Kesehatan (PNEPK) Departemen Kesehatan RI tahun 2004.

Semarang, 26 Agustus 2019
Komisi Bioetika Penelitian Kedokteran/Kesehatan
Fakultas Kedokteran Unissula


(dr. Sofwan Dahlan, Sp.F(K))

Lampiran 2. Surat Keterangan Selesai Penelitian dari IBL FK UNISSULA



UNIVERSITAS ISLAM SULTAN AGUNG (UNISSULA)

INTEGRATED BIOMEDICAL LABORATORY

FAKULTAS KEDOKTERAN

Jl. Raya Kaligawe KM.4, Semarang 50112
Tel. +62246583584, email: ibl@unissula.ac.id

Laboratorium Biomedik Terintegrasi

SURAT KETERANGAN **No. 124/IBL-FK-SA/II/2020**

Yang Bertanda tangan di bawah ini :

Nama : Dina Fatmawati, M.Sc.
Jabatan : Kepala Laboratorium Biomedik Terintegrasi FK Unissula

Menerangkan bahwa :

Nama : Siti Nurul Hasanah
NIM/NIK : MBK. 16.7.010096
Fakultas : Kedokteran / Biomedik
Universitas : Universitas Islam Sultan Agung
Judul : Potensi Serbuk Jantung Tiram Putih (*Pleurotus ostreatus*) Kaya Vitamin D Terhadap Kadar Gula Darah, Plasma Insulin dan Kadar TNF-alpha Pada Tikus Diabetes Melitus Tipe 2 (Studi Eksperimental Pada Tikus Jantan Galur Wistar yang Diinduksi Streptomicin-NA)

Telah selesai melakukan penelitian di Laboratorium Biomedik Terintegrasi Fakultas Kedokteran Universitas Islam Sultan Agung, untuk menunjang penyusunan Tugas Akhir (Tesis) ataupun Karya Tulis Ilmiah (KTI). Adapun penelitian dilakukan pada Desember 2019 – Februari 2020.

Demikian surat keterangan ini dibuat untuk dapat dipergunakan seperlunya.

Semarang, 29 Februari 2020
Mengetahui,
Kepala Lab. Biomedik Terintegrasi
Fakultas Kedokteran Unissula

Dina Fatmawati, M.Sc.
NIK. 210109143

Lampiran 3. Hasil Pemeriksaan Glukosa Darah di Klinik Utama “Imam Bonjol”

LABORATORIUM KLINIK

MEDICAL CHECK UP CENTER

TERAKREDITASI PENUH
 KALK. PUSAT NO. 1303/SKLN-PS/2018
 (Kantor Akreditasi Laboratorium Kesehatan)

PENELITIAN DARAH TIKUS
Senin, 04 November 2019

Nama lengkap : dr. Siti Nurul Hasanah
 Fakultas : Biomedik Unissula
 Nama Penelitian : Potensi Serbuk Jamur Tiram Putih (*Pleurotus ostreatus*) Kaya Vitamin D Terhadap Kadar Gula Darah, Plasma Insulin dan Kadar TNF-alpha Pada Tikus Diabetes Melitus Tipe 2 (Studi Eksperimental Pada Tikus Jantan Galur Wistar yang Diinduksi Streptomycin-NA)
 Sampel : Darah tikus

NO	NO. LAB	KODE SAMPEL	Glukosa
1	SIR2000113	I.2	342
2	SIR2000114	I.3	229
3	SIR2000115	I.4	416
4	SIR2000135	I.5	141
5	SIR2000136	I.6	129
6	SIR2000116	II.1	412
7	SIR2000117	II.2	368
8	SIR2000118	II.3	269
9	SIR2000119	II.5	129
10	SIR2000145	III.1	530
11	SIR2000120	III.2	106
12	SIR2000121	III.3	98
13	SIR2000147	III.4	204
14	SIR2000146	III.5	350
15	SIR2000122	IV.2	239
16	SIR2000123	IV.3	167
17	SIR2000124	IV.4	456
18	SIR2000125	IV.5	278
19	SIR2000126	IV.7	242
20	SIR2000127	V.1	462
21	SIR2000137	V.2	162
22	SIR2000128	V.4	229
23	SIR2000129	V.7	429
24	SIR2000130	VI.1	114
25	SIR2000131	VI.2	91
26	SIR2000132	VI.3	92
27	SIR2000133	VI.4	99
28	SIR2000134	VI.5	76

Nilai Normal :
 1. Glukosa : < 110 mg/dl
 Metode : GOD-PAP

LABORATORIUM KLINIK

MEDICAL CHECK UP CENTER
 (.....)

• Jl. Tentara Pelajar No.16, lampir Kidul, Kec. Semarang Selatan, Kota Semarang (024) 845164

**Lampiran 4. Hasil Pemeriksaan kadar vitamin D dan kadar TNF- α di
“Laboratorium Biomedik Terintegrasi Fakultas Kedokteran
Unissula”**



UNIVERSITAS ISLAM SULTAN AGUNG (UNISSULA)
INTEGRATED BIOMEDICAL LABORATORY
FAKULTAS KEDOKTERAN

Jl. Raya Kaligawe KML4, Semarang 50112
Tel. +62246583584, email: ibl@unissula.ac.id

Laboratorium Biomedik Terintegrasi

Hasil Penelitian ELISA (Kadar Vitamin D)

Kelompok	Negatif (I)	2000 IU (II)	4000 IU (III)	8000 IU (IV)	Normal (V)
1	34,29	129,84	179,08	124,6	87,05
2	26,04	148,92	206,52	114,81	114,32
3	74,9	133,2	54,99	261,35	40,19
4	82,77	90,45	97,63	133,2	48,72
5	80,58	85,73	95,76	158,89	110

Keterangan :

Standart	Abs.
3,2746	20.000,0
3,4929	6.666,7
3,5473	2.222,2
3,5335	740,7
3,6387	246,9

Hasil Penelitian ELISA (Kadar TNF- α)

Kelompok	Negatif (I)	2000 IU (II)	4000 IU (III)	8000 IU (IV)	Normal (V)
1	102,529	75,117	60,41	86,705	-5,764
2	75,176	100	86,47	130,882	12,294
3	83,529	103,764	103,88	123,176	10,588
4	51,47	83,823	126,647	117,352	108,529
5	102,941	-8,529	134,235	109,235	112,352

Keterangan :

Standart	Abs
1280	2,4188
640	0,8186
320	0,7553
160	0,4860
80	0,2461

Lampiran 5. Hasil perhitungan rerata glukosa darah melalui excel

	kelompok 2000 IU			kelompok 4000 IU			kelompok 8000 IU		
	pre	post	delta	pre	post	delta	pre	post	delta
	442	342	100	543	412	131	253	189	64
	355	229	126	527	388	139	323	106	217
	449	416	33	330	269	61	273	98	175
	363	129	234	340	129	211	320	204	116
	339	279	60	315	299	16	384	350	34
rerata	389,6	279,0	110,6	411,0	299,4	111,6	310,6	189,4	121,2
	kelompok kontrol positif			kelompok kontrol negatif			kelompok kontrol normal		
	pre	post	delta	pre	post	delta	pre	post	delta
	379	239	140	425	462	-37	90	114	-24
	317	167	150	194	229	-35	72	91	-19
	434	231	203	322	429	-107	100	99	1
	331	278	53	290	162	128	88	76	12
	256	242	14	360	320	40	76	95	-19
rerata	343,4	231,4	112	318,2	320,4	-2,2	85,2	95	-9,8

Lampiran 6. Hasil uji normalitas rerata glukosa darah pre dan post

Tests of Normality

data		Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
sebelum	2000IU	.296	5	.174	.825	5	.127
	4000IU	.334	5	.071	.767	5	.042
	8000IU	.204	5	.200 [*]	.949	5	.727
	POSITIF	.173	5	.200 [*]	.989	5	.975
	NEGATIF	.171	5	.200 [*]	.988	5	.973
	NORMAL	.198	5	.200 [*]	.950	5	.739
sesudah	2000IU	.124	5	.200 [*]	.996	5	.995
	4000IU	.193	5	.200 [*]	.931	5	.604
	8000IU	.243	5	.200 [*]	.884	5	.329
	POSITIF	.296	5	.175	.900	5	.411
	NEGATIF	.202	5	.200 [*]	.939	5	.662
	NORMAL	.185	5	.200 [*]	.980	5	.936

a. Lilliefors Significance Correction

*. This is a lower bound of the true significance.

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
logsebelum	.324	5	.094	.778	5	.053
sesudah	.193	5	.200 [*]	.931	5	.604

a. Lilliefors Significance Correction

*. This is a lower bound of the true significance.

Lampiran 7. Hasil uji normalitas dan homogenitas delta rerata glukosa darah

kelompok	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
deltaprepos 2000 IU	.221	5	.200 [*]	.925	5	.565
4000 IU	.202	5	.200 [*]	.970	5	.877
8000 IU	.175	5	.200 [*]	.959	5	.800
positif	.242	5	.200 [*]	.941	5	.675
negatif	.243	5	.200 [*]	.954	5	.769
normal	.323	5	.095	.859	5	.224

a. Lilliefors Significance Correction

*. This is a lower bound of the true significance.

		Levene Statistic	df1	df2	Sig.
deltaprepos	Based on Mean	1.540	5	24	.215
	Based on Median	.783	5	24	.572
	Based on Median and with adjusted df	.783	5	18.232	.575
	Based on trimmed mean	1.506	5	24	.225

Lampiran 8. Hasil Uji T Berpasangan, *One Way Anova* dan *Post hoc* antar kelompok GDP

Kelompok 2000IU

Paired Samples Test

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair 1 sebelum - sesudah	1.1060E2	77.71615	34.75572	14.10265	207.09735	3.182	4	.033

Kelompok 4000IU

Paired Samples Test

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair 1 sebelum - sesudah	1.1160E2	75.34454	33.69510	18.04739	205.15261	3.312	4	.030

Kelompok 8000IU

Paired Samples Test

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair 1 sebelum - sesudah	1.2120E2	75.78720	33.89307	27.09776	215.30224	3.576	4	.023

Kelompok kontrol positif

Paired Samples Test

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair 1 sebelum - sesudah	112.000	76.802	34.347	16.638	207.362	3.261	4	.031

Kelompok kontrol negatif

Paired Samples Test

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair 1 sebelum - sesudah	-2.20000	89.44663	40.00175	-113.26266	108.86266	-.055	4	.959

Kelompok kontrol normal

Paired Samples Test

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair 1 sebelum - sesudah	-9.80000	15.51451	6.93830	-29.06381	9.46381	-1.412	4	.231

Descriptives

deltaprenos

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
2000 IU	5	1.1060E2	77.71615	34.75572	14.1027	207.0973	33.00	234.00
4000 IU	5	1.1160E2	75.34454	33.69510	18.0474	205.1526	16.00	211.00
8000 IU	5	1.2120E2	75.78720	33.89307	27.0978	215.3022	34.00	217.00
positif	5	1.1200E2	76.80169	34.34676	16.6381	207.3619	14.00	203.00
negatif	5	-2.2000	89.44663	40.00175	-113.2627	108.8627	-107.00	128.00
normal	5	-9.8000	15.51451	6.93830	-29.0638	9.4638	-24.00	12.00
Total	30	73.9000	87.62591	15.99823	41.1799	106.6201	-107.00	234.00

Test of Homogeneity of Variances

deltaprenos

Levene Statistic	df1	df2	Sig.
1.540	5	24	.215

ANOVA

deltaprenos

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	96269.900	5	19253.980	3.656	.013
Within Groups	126400.800	24	5266.700		
Total	222670.700	29			

Multiple Comparisons

deltaprepos
LSD

(I) kelompok	(J) kelompok	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
2000 IU	4000 IU	-1.00000	45.89858	.983	-95.7300	93.7300
	8000 IU	-10.60000	45.89858	.819	-105.3300	84.1300
	positif	-1.40000	45.89858	.976	-96.1300	93.3300
	negatif	112.80000*	45.89858	.022	18.0700	207.5300
	normal	120.40000*	45.89858	.015	25.6700	215.1300
4000 IU	2000 IU	1.00000	45.89858	.983	-93.7300	95.7300
	8000 IU	-9.60000	45.89858	.836	-104.3300	85.1300
	positif	-.40000	45.89858	.993	-95.1300	94.3300
	negatif	113.80000*	45.89858	.021	19.0700	208.5300
	normal	121.40000*	45.89858	.014	26.6700	216.1300
8000 IU	2000 IU	10.60000	45.89858	.819	-84.1300	105.3300
	4000 IU	9.60000	45.89858	.836	-85.1300	104.3300
	positif	9.20000	45.89858	.843	-85.5300	103.9300
	negatif	123.40000*	45.89858	.013	28.6700	218.1300
	normal	131.00000*	45.89858	.009	36.2700	225.7300
positif	2000 IU	1.40000	45.89858	.976	-93.3300	96.1300
	4000 IU	.40000	45.89858	.993	-94.3300	95.1300
	8000 IU	-9.20000	45.89858	.843	-103.9300	85.5300
	negatif	114.20000*	45.89858	.020	19.4700	208.9300
	normal	121.80000*	45.89858	.014	27.0700	216.5300
negatif	2000 IU	-112.80000*	45.89858	.022	-207.5300	-18.0700
	4000 IU	-113.80000*	45.89858	.021	-208.5300	-19.0700
	8000 IU	-123.40000*	45.89858	.013	-218.1300	-28.6700
	positif	-114.20000*	45.89858	.020	-208.9300	-19.4700
	normal	7.60000	45.89858	.870	-87.1300	102.3300
normal	2000 IU	-120.40000*	45.89858	.015	-215.1300	-25.6700
	4000 IU	-121.40000*	45.89858	.014	-216.1300	-26.6700
	8000 IU	-131.00000*	45.89858	.009	-225.7300	-36.2700
	positif	-121.80000*	45.89858	.014	-216.5300	-27.0700
	negatif	-7.60000	45.89858	.870	-102.3300	87.1300

*. The mean difference is significant at the 0.05 level.

Lampiran 9. Hasil rerata, normalitas, homogenitas, uji ANOVA dan Post Hoc antar kelompok kadar vitamin D

Descriptives

Kadar vit D

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
K. negatif	5	59.71600	27.285077	12.202257	25.83710	93.59490	26.040	82.770
2000 IU	5	117.62800	27.959504	12.503870	82.91169	152.34431	85.730	148.920
4000 IU	5	126.79600	63.363087	28.336834	48.12034	205.47166	54.990	206.520
8000 IU	5	158.57000	59.741874	26.717378	84.39067	232.74933	114.810	261.350
K. normal	5	80.05600	34.244794	15.314738	37.53547	122.57653	40.190	114.320
Total	25	108.55320	54.658608	10.931722	85.99124	131.11516	26.040	261.350

Tests of Normality

	Kelompok	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	Df	Sig.	Statistic	df	Sig.
Kadar vit D	K. negatif	.311	5	.128	.802	5	.085
	2000 IU	.269	5	.200*	.875	5	.289
	4000 IU	.277	5	.200*	.909	5	.462
	8000 IU	.298	5	.168	.782	5	.058
	K. normal	.220	5	.200*	.875	5	.287

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
Kadar vit D	Based on Mean	1.800	4	20	.168
	Based on Median	.497	4	20	.738
	Based on Median and with adjusted df	.497	4	11.789	.739
	Based on trimmed mean	1.696	4	20	.190

ANOVA

Kadar vit D

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	30569.973	4	7642.493	3.716	.020
Within Groups	41131.550	20	2056.578		
Total	71701.523	24			

Multiple Comparisons

Dependent Variable: Kadar vit D
LSD

(I) Kelompok	(J) Kelompok	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
K. negatif	2000 IU	-57.912000	28.681545	.057	-117.74065	1.91665
	4000 IU	-67.080000*	28.681545	.030	-126.90865	-7.25135
	8000 IU	-98.854000*	28.681545	.003	-158.68265	-39.02535
	K. normal	-20.340000	28.681545	.486	-80.16865	39.48865
2000 IU	K. negatif	57.912000	28.681545	.057	-1.91665	117.74065
	4000 IU	-9.168000	28.681545	.753	-68.99665	50.66065
	8000 IU	-40.942000	28.681545	.169	-100.77065	18.88665
	K. normal	37.572000	28.681545	.205	-22.25665	97.40065
4000 IU	K. negatif	67.080000*	28.681545	.030	7.25135	126.90865
	2000 IU	9.168000	28.681545	.753	-50.66065	68.99665
	8000 IU	-31.774000	28.681545	.281	-91.60265	28.05465
	K. normal	46.740000	28.681545	.119	-13.08865	106.56865
8000 IU	K. negatif	98.854000*	28.681545	.003	39.02535	158.68265
	2000 IU	40.942000	28.681545	.169	-18.88665	100.77065
	4000 IU	31.774000	28.681545	.281	-28.05465	91.60265
	K. normal	78.514000*	28.681545	.013	18.68535	138.34265
K. normal	K. negatif	20.340000	28.681545	.486	-39.48865	80.16865
	2000 IU	-37.572000	28.681545	.205	-97.40065	22.25665
	4000 IU	-46.740000	28.681545	.119	-106.56865	13.08865
	8000 IU	-78.514000*	28.681545	.013	-138.34265	-18.68535

*. The mean difference is significant at the 0.05 level.

Lampiran 10. Hasil rerata, normalitas, homogenitas, uji Kruskal-Wallis antar kelompok kadar TNF- α

Descriptives

kadar TNF-a

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
					K. negatif	5		
2000 IU	5	70.83500	45.881871	20.518997	13.86513	127.80487	-8.529	103.764
4000 IU	5	102.32840	30.085187	13.454505	64.97271	139.68409	60.410	134.235
8000 IU	5	113.47000	16.931882	7.572168	92.44629	134.49371	86.705	130.882
K. normal	5	47.59980	57.812807	25.854673	-24.18428	119.38388	-5.764	112.352
Total	25	83.47244	41.784179	8.356836	66.22478	100.72010	-8.529	134.235

Tests of Normality

	Kelompok	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	Df	Sig.	Statistic	Df	Sig.
kadar TNF-a	K. negatif	.217	5	.200*	.908	5	.455
	2000 IU	.337	5	.065	.772	5	.047
	4000 IU	.191	5	.200*	.954	5	.764
	8000 IU	.201	5	.200*	.934	5	.624
	K. normal	.329	5	.081	.780	5	.056

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
kadar TNF-a	Based on Mean	3.804	4	20	.019
	Based on Median	.841	4	20	.516
	Based on Median and with adjusted df	.841	4	9.371	.532
	Based on trimmed mean	3.387	4	20	.029

Kruskal-Wallis Test

Ranks

	Kelompok	N	Mean Rank
kadar TNF-a	K. negatif	5	10.20
	2000 IU	5	9.40
	4000 IU	5	16.40
	8000 IU	5	19.60
	K. normal	5	9.40
	Total	25	

Test Statistics^{a,b}

	kadar TNF-a
Chi-Square	8.204
df	4
Asymp. Sig.	.084

a. Kruskal Wallis Test

b. Grouping Variable: Kelompok

Mann-Whitney Test**Ranks**

	Kelompok	N	Mean Rank	Sum of Ranks
TNF_alpha	NEGATIF	5	5.60	28.00
	2000IU	5	5.40	27.00
	Total	10		

Test Statistics^a

	TNF_alpha
Mann-Whitney U	12.000
Wilcoxon W	27.000
Z	-.104
Asymp. Sig. (2-tailed)	.917
Exact Sig. [2*(1-tailed Sig.)]	1.000 ^b

a. Grouping Variable: Kelompok

b. Not corrected for ties.

Ranks

	Kelompok	N	Mean Rank	Sum of Ranks
TNF_alpha	NEGATIF	5	4.20	21.00
	4000IU	5	6.80	34.00
	Total	10		

Test Statistics^a

	TNF_alpha
Mann-Whitney U	6.000
Wilcoxon W	21.000
Z	-1.358
Asymp. Sig. (2-tailed)	.175
Exact Sig. [2*(1-tailed Sig.)]	.222 ^b

a. Grouping Variable: Kelompok

b. Not corrected for ties.

Ranks

	Kelompok	N	Mean Rank	Sum of Ranks
TNF_alpha	NEGATIF	5	3.40	17.00
	8000IU	5	7.60	38.00
	Total	10		

Test Statistics^a

	TNF_alpha
Mann-Whitney U	2.000
Wilcoxon W	17.000
Z	-2.193
Asymp. Sig. (2-tailed)	.028
Exact Sig. [2*(1-tailed Sig.)]	.032 ^b

a. Grouping Variable: Kelompok

b. Not corrected for ties.

Ranks

	Kelompok	N	Mean Rank	Sum of Ranks
TNF_alpha	NEGATIF	5	6.00	30.00
	NORMAL	5	5.00	25.00
	Total	10		

Test Statistics^a

	TNF_alpha
Mann-Whitney U	10.000
Wilcoxon W	25.000
Z	-.522
Asymp. Sig. (2-tailed)	.602
Exact Sig. [2*(1-tailed Sig.)]	.690 ^b

a. Grouping Variable: Kelompok

b. Not corrected for ties.

Ranks

	Kelompok	N	Mean Rank	Sum of Ranks
TNF_alpha	2000IU	5	4.20	21.00
	4000IU	5	6.80	34.00
	Total	10		

Test Statistics^a

	TNF_alpha
Mann-Whitney U	6.000
Wilcoxon W	21.000
Z	-1.358
Asymp. Sig. (2-tailed)	.175
Exact Sig. [2*(1-tailed Sig.)]	.222 ^b

a. Grouping Variable: Kelompok

b. Not corrected for ties.

Ranks

	Kelompok	N	Mean Rank	Sum of Ranks
TNF_alpha	2000IU	5	3.40	17.00
	8000IU	5	7.60	38.00
	Total	10		

Test Statistics^a

	TNF_alpha
Mann-Whitney U	2.000
Wilcoxon W	17.000
Z	-2.193
Asymp. Sig. (2-tailed)	.028
Exact Sig. [2*(1-tailed Sig.)]	.032 ^b

a. Grouping Variable: Kelompok

b. Not corrected for ties.

Ranks

	Kelompok	N	Mean Rank	Sum of Ranks
TNF_alpha	2000IU	5	5.40	27.00
	NORMAL	5	5.60	28.00
	Total	10		

Test Statistics^a

	TNF_alpha
Mann-Whitney U	12.000
Wilcoxon W	27.000
Z	-.104
Asymp. Sig. (2-tailed)	.917
Exact Sig. [2*(1-tailed Sig.)]	1.000 ^b

a. Grouping Variable: Kelompok

b. Not corrected for ties.

Ranks

	Kelompok	N	Mean Rank	Sum of Ranks
TNF_alpha	4000IU	5	5.00	25.00
	8000IU	5	6.00	30.00
	Total	10		

Test Statistics^a

	TNF_alpha
Mann-Whitney U	10.000
Wilcoxon W	25.000
Z	-.522
Asymp. Sig. (2-tailed)	.602
Exact Sig. [2*(1-tailed Sig.)]	.690 ^b

a. Grouping Variable: Kelompok

b. Not corrected for ties.

Ranks

	Kelompok	N	Mean Rank	Sum of Ranks
TNF_alpha	4000IU	5	6.80	34.00
	NORMAL	5	4.20	21.00
	Total	10		

Test Statistics^a

	TNF_alpha
Mann-Whitney U	6.000
Wilcoxon W	21.000
Z	-1.358
Asymp. Sig. (2-tailed)	.175
Exact Sig. [2*(1-tailed Sig.)]	.222 ^b

a. Grouping Variable: Kelompok

b. Not corrected for ties.

Ranks

	Kelompok	N	Mean Rank	Sum of Ranks
TNF_alpha	8000IU	5	7.40	37.00
	NORMAL	5	3.60	18.00
	Total	10		

Test Statistics^a

	TNF_alpha
Mann-Whitney U	3.000
Wilcoxon W	18.000
Z	-1.984
Asymp. Sig. (2-tailed)	.047
Exact Sig. [2*(1-tailed Sig.)]	.056 ^b

a. Grouping Variable: Kelompok

b. Not corrected for ties.

Lampiran 11. Dokumentasi Penelitian

