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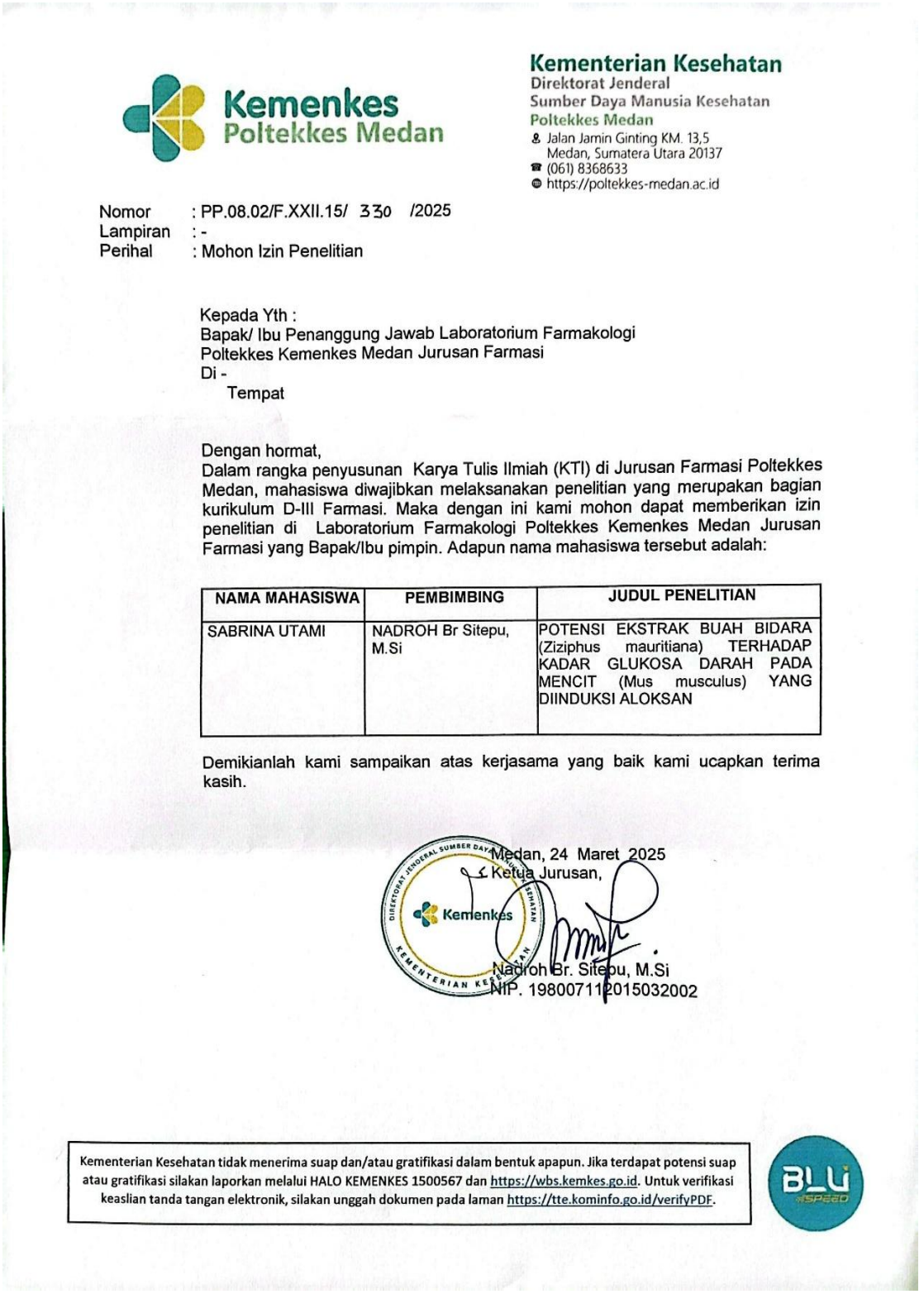
DAFTAR LAMPIRAN

Lampiran 1 Surat Izin Lab



Kementerian Kesehatan
Direktorat Jenderal
Sumber Daya Manusia Kesehatan
Poltekkes Medan
Jalan Jamin Ginting KM. 13,5
Medan, Sumatera Utara 20137
(061) 8368633
https://poltekkes-medan.ac.id

Kemenkes
Poltekkes Medan

Nomor : PP.08.02/F.XXII.15/ 330 /2025
Lampiran : -
Perihal : Mohon Izin Penelitian

Kepada Yth :
Bapak/ Ibu Penanggung Jawab Laboratorium Farmakologi
Poltekkes Kemenkes Medan Jurusan Farmasi
Di -
Tempat

Dengan hormat,
Dalam rangka penyusunan Karya Tulis Ilmiah (KTI) di Jurusan Farmasi Poltekkes Medan, mahasiswa diwajibkan melaksanakan penelitian yang merupakan bagian kurikulum D-III Farmasi. Maka dengan ini kami mohon dapat memberikan izin penelitian di Laboratorium Farmakologi Poltekkes Kemenkes Medan Jurusan Farmasi yang Bapak/Ibu pimpin. Adapun nama mahasiswa tersebut adalah:

NAMA MAHASISWA	PEMBIMBING	JUDUL PENELITIAN
SABRINA UTAMI	NADROH Br Sitepu, M.Si	POTENSI EKSTRAK BUAH BIDARA (Ziziphus mauritiana) TERHADAP KADAR GLUKOSA DARAH PADA MENCIT (Mus musculus) YANG DIINDUKSI ALOKSAN

Demikianlah kami sampaikan atas kerjasama yang baik kami ucapkan terima kasih.

Medan, 24 Maret 2025
a.n. Ketua Jurusan,

Nadroh Br. Sitepu, M.Si
NIP. 198007112015032002

Kementerian Kesehatan tidak menerima suap dan/atau gratifikasi dalam bentuk apapun. Jika terdapat potensi suap atau gratifikasi silakan laporkan melalui HALO KEMENKES 1500567 dan https://wbs.kemkes.go.id. Untuk verifikasi keaslian tanda tangan elektronik, silakan unggah dokumen pada laman https://tte.kominfo.go.id/verifyPDF.

Lampiran 2 Surat Etikal Penelitian

Kementerian Kesehatan
Poltekkes Medan
Komisi Etik Penelitian Kesehatan
Jalan Jamin Ginting KM. 13,5
Medan, Sumatera Utara 20137
(061) 8368633
https://poltekkes-medan.ac.id

KETERANGAN LAYAK ETIK
DESCRIPTION OF ETHICAL EXEMPTION
"ETHICAL EXEMPTION"

No.01.26.1152/KEPK/POLTEKKES KEMENKES MEDAN 2025

Protokol penelitian versi 1 yang diusulkan oleh :
The research protocol proposed by

Peneliti utama : Sabrina Utami
Principal In Investigator

Nama Institusi : Poltekkes Kemenkes Medan
Name of the Institution

Dengan judul:
Title
"POTENSI EKSTRAK BUAH BIDARA (Ziziphus mauritiana) TERHADAP KADAR GLUKOSA DARAH PADA MENCIT (Mus musculus) YANG DIINDUKSI ALOKSAN"

"POTENTIAL OF BIDARA FRUIT EXTRACT (Ziziphus mauritiana) ON BLOOD GLUCOSE LEVELS IN MICE (Mus musculus) INDUCED BY ALLOXAN"

Dinyatakan layak etik sesuai 7 (tujuh) Standar WHO 2011, yaitu 1) Nilai Sosial, 2) Nilai Ilmiah, 3) Pemerataan Beban dan Manfaat, 4) Risiko, 5) Bujukan/Eksploitasi, 6) Kerahasiaan dan Privacy, dan 7) Persetujuan Setelah Penjelasan, yang merujuk pada Pedoman CIOMS 2016. Hal ini seperti yang ditunjukkan oleh terpenuhinya indikator setiap standar.

Declared to be ethically appropriate in accordance to 7 (seven) WHO 2011 Standards, 1) Social Values, 2) Scientific Values, 3) Equitable Assessment and Benefits, 4) Risks, 5) Persuasion/Exploitation, 6) Confidentiality and Privacy, and 7) Informed Concent, referring to the 2016 CIOMS Guidelines. This is as indicated by the fulfillment of the indicators of each standard.

Pernyataan Laik Etik ini berlaku selama kurun waktu tanggal 03 Juni 2025 sampai dengan tanggal 03 Juni 2026.

This declaration of ethics applies during the period June 03, 2025 until June 03, 2026.

June 03, 2025
Chairperson,

Dr. Lestari Rahmah, MKT

00211/EE/2025/0159231271

Lampiran 3 Surat Hebarium Medanense

LABORATORIUM SISTEMATIKA TUMBUHAN
HERBARIUM MEDANENSE
(MEDA)
UNIVERSITAS SUMATERA UTARA
JL. Bioteknologi No.1 Kampus USU, Medan – 20155
Telp. 061 – 8223564 Fax. 061 – 8214290 E-mail.nursaharapasaribu@yahoo.com

Medan, 15 April 2025

No. : 270/MEDA/2025
Lamp. : -
Hal : Hasil Identifikasi

Kepada YTH,
Sdr/i : Sabrina Utami
NIM : P07539022234
Instansi : Poltekkes Kemenkes Medan

Dengan hormat,
Bersama ini disampaikan hasil identifikasi tumbuhan yang saudara kirimkan ke Herbarium Medanense, Universitas Sumatera Utara, sebagai berikut:
Kingdom : Plantae
Divisi : Spermatophyta
Kelas : Dicotyledoneae
Ordo : Rosales
Famili : Rhamnaceae
Genus : Ziziphus
Spesies : *Ziziphus mauritiana* Lam.
Nama Lokal: Bidara

Demikian, semoga berguna bagi saudara.

Kepala Herbarium Medanense.

Prof. Dr. Etti Sartina Siregar, S.Si., M.Si.
NIP. 197211211998022001

Lampiran 4 Kartu Bimbingan

Kemenkes
Poltekkes Medan
JURUSAN FARMASI
JL. AIRLANGGA NO. 20 MEDAN

KARTU LAPORAN PERTEMUAN BIMBINGAN KTI
MAHASISWA T. A. 2024/2025

Nama : SABRINA UTAMI
NIM : P07539022234
Pembimbing : Nadroh Br Sitepu, M.Si.

NO	TGL	PERTEMUAN	PEMBAHASAN	PARAF PEMBIMBING
1	17/01 2025	I	Diskusi mengenai judul KTI	
2	21/01 2025	II	Acc judul KTI	
3	06/03 2025	III	Diskusi Bab I, II, III	
4	10/03 2025	IV	Bimbingan dan Revisi Bab I, II, dan III	
5	14/03 2025	V	Revisi Bab I, II, dan III	
6	16/03 2025	VI	Revisi Bab III dan perbaikan Dapus	
7	18/03 2025	VII	Acc Proposal	
8	16/05 2025	VIII	Bimbingan Bab IV	
9	16/05 2025	IX	Bimbingan Bab V	
10	19/05 2025	X	Revisi Bab IV dan V	
11	20/05 2025	XI	ACC KTI	
12	30/06 2025	XII	ACC KTI Penguji I & II	

Ketua,

Nadroh Br Sitepu, M. Si.
NIP. 198007112015032002

Lampiran 5 Tabel Konversi Dosis Manusia dan Hewan

	Mencit 20g	**Tikus 200 g**	**Marmut 400 g**	**Kelinci 1,5 kg**	**Kucing 2 kg**	**Kera 4 kg**	**Kera 4 kg**	**Manusia 70 kg**
Mencit 20g	1.0	7.0	12.25	27.8	29.7	64.1	124.2	387.9
Tikus 200 g	0.14	1.0	1.74	3.9	4.2	9.2	17.8	56.0
Marmut 400 g	0.08	0.57	1.0	2.25	2.4	5.2	10.2	31.5
Kelinci 1,5 kg	0.04	0.25	0.44	1.0	1.08	2.4	4.5	14.2
Kucing 2 kg	0.03	0.23	0.41	0.92	1.0	2.2	4.1	13.0
Kera 4 kg	0.016	0.11	0.19	0.42	0.45	1.0	1.9	6.1
Anjing 12 kg	0.008	0.06	0.10	0.22	0.24	0.52	0.1	3.1
Manusia 70 kg	0.0026	0.018	0.031	0.07	0.0076	0.16	0.32	1.0

Lampiran 6 Tabel Maksimum Larutan Sediaan Uji Untuk Hewan

Jenis Hewan Uji	Volume Maksimal (ml) sesuai Jalur Pemberian				
	i.v.	i.m.	i.p.	s.c.	p.o.
Mencit (20-30 gr)	0,5	0,05	1,0	0,5-10	1,0
Tikus (100 gr)	1,0	0,1	2,5	2,5	5,0
Hamster (50 gr)	-	0,1	1-2	2,5	2,5
Marmot (250 gr)	-	0,25	2-5	5,0	10,0
Merpati (300 gr)	2,0	0,5	2,0	2,0	10,0
Kelinci (2,5 kg)	5-10	0,5	10-20	5-10	20,0
Kucing (3 kg)	5-10	1,0	10-20	5-10	50,0
Anjing (5 kg)	10-20	5,0	20-50	10,0	100,0

Keterangan :

i.v : Intravena

i.m. : Intramuscular

i.p. : Intraperitoneal

s.c. : Subcutan

p.o. : Peroral

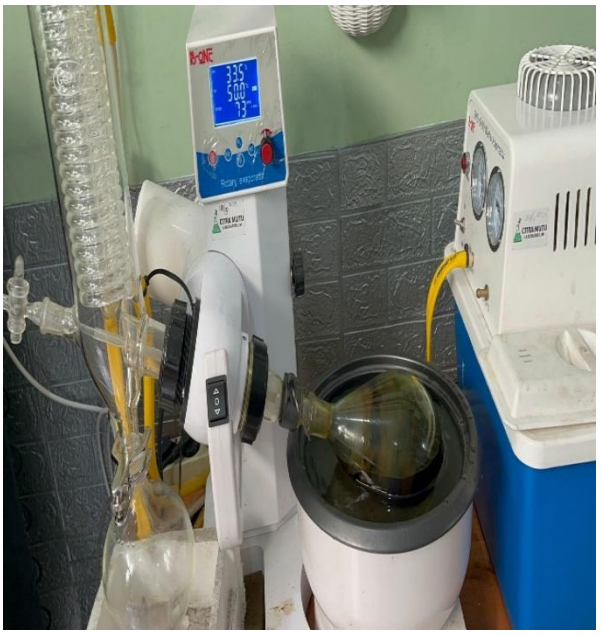
Lampiran 7 Gambar Penelitian

Gambar 1. Simplisia Basah

Gambar 2. Simplisia Kering

Gambar 3. Serbuk Halus

Gambar 4. Maserasi



Gambar 5. Rotary Evaporator

Gambar 6. Ekstrak Kental

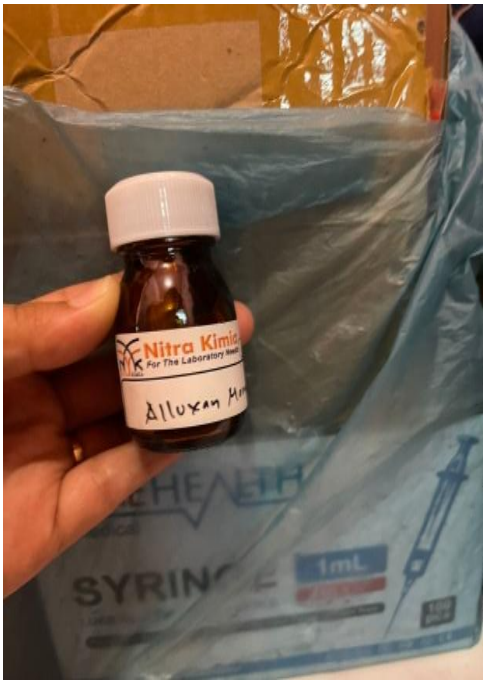
Gambar 7. Glibenklamid

Gambar 8. CMC 0,5%

Gambar 9. Adaptasi Mencit

Gambar 10. Memberi Makan Mencit

Gambar 11. Timbangan Mencit



Gambar 12. Aloksan

Gambar 13. Glukometer dan strip

Gambar 14. Pemberian Secara Oral

Gambar 15. Pemberian Secara Intraperitoneal

Gambar 16. Pengukuran KGD

Lampiran 8 Analisis Data Anova

Gambar 1. Hasil Uji Normalitas

Tests of Normality

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Kelompok	Statistic	df	Sig.	Statistic	df	Sig.
Puasa	1	.276	3	.	.942	3	.537
	2	.175	3	.	1.000	3	1.000
	3	.263	3	.	.955	3	.593
	4	.227	3	.	.983	3	.747
	5	.292	3	.	.923	3	.463
Pretest	1	.248	3	.	.968	3	.658
	2	.294	3	.	.921	3	.456
	3	.175	3	.	1.000	3	.992
	4	.297	3	.	.917	3	.443
	5	.340	3	.	.848	3	.235
Postest	1	.230	3	.	.981	3	.736
	2	.343	3	.	.842	3	.220
	3	.333	3	.	.862	3	.274
	4	.263	3	.	.955	3	.593
	5	.314	3	.	.893	3	.363

a. Lilliefors Significance Correction

Gambar 2. Hasil Uji Homogenitas

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Puasa	Based on Mean	.825	4	10	.538
	Based on Median	.247	4	10	.905
	Based on Median and with adjusted df	.247	4	8.089	.904
	Based on trimmed mean	.771	4	10	.568
Pretest	Based on Mean	.858	4	10	.521
	Based on Median	.251	4	10	.902
	Based on Median and with adjusted df	.251	4	6.839	.900
	Based on trimmed mean	.799	4	10	.553
Postest	Based on Mean	3.033	4	10	.070
	Based on Median	.534	4	10	.714
	Based on Median and with adjusted df	.534	4	4.192	.720
	Based on trimmed mean	2.710	4	10	.092

Gambar 3. Hasil Uji Anova

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Puasa	Between Groups	224.400	4	56.100	1.336	.322
	Within Groups	420.000	10	42.000		
	Total	644.400	14			
Pretest	Between Groups	10705.733	4	2676.433	.772	.568
	Within Groups	34678.000	10	3467.800		
	Total	45383.733	14			
Postest	Between Groups	10324.667	4	2581.167	9.418	.002
	Within Groups	2740.667	10	274.067		
	Total	13065.333	14			

Gambar 4. Hasil Uji Tukey HSD

Multiple Comparisons

Tukey HSD

Dependent Variable	(I) Kelompok	(J) Kelompok	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval Lower Bound	Upper Bound
Puasa	1	2	11.000	5.292	.299	-6.41	28.41
		3	1.000	5.292	1.000	-16.41	18.41
		4	4.000	5.292	.938	-13.41	21.41
		5	5.000	5.292	.873	-12.41	22.41
	2	1	-11.000	5.292	.299	-28.41	6.41
		3	-10.000	5.292	.381	-27.41	7.41
		4	-7.000	5.292	.685	-24.41	10.41
		5	-6.000	5.292	.786	-23.41	11.41
	3	1	-1.000	5.292	1.000	-18.41	16.41
		2	10.000	5.292	.381	-7.41	27.41
		4	3.000	5.292	.977	-14.41	20.41
		5	4.000	5.292	.938	-13.41	21.41
	4	1	-4.000	5.292	.938	-21.41	13.41
		2	7.000	5.292	.685	-10.41	24.41
		3	-3.000	5.292	.977	-20.41	14.41
		5	1.000	5.292	1.000	-16.41	18.41
	5	1	-5.000	5.292	.873	-22.41	12.41
		2	6.000	5.292	.786	-11.41	23.41
		3	-4.000	5.292	.938	-21.41	13.41
		4	-1.000	5.292	1.000	-18.41	16.41
Pretest	1	2	84.333	48.082	.447	-73.91	242.57
		3	42.333	48.082	.898	-115.91	200.57
		4	44.667	48.082	.879	-113.57	202.91
		5	46.000	48.082	.868	-112.24	204.24

	2	1	-84.333	48.082	.447	-242.57	73.91
		3	-42.000	48.082	.900	-200.24	116.24
		4	-39.667	48.082	.917	-197.91	118.57
		5	-38.333	48.082	.926	-196.57	119.91
	3	1	-42.333	48.082	.898	-200.57	115.91
		2	42.000	48.082	.900	-116.24	200.24
		4	2.333	48.082	1.000	-155.91	160.57
		5	3.667	48.082	1.000	-154.57	161.91
	4	1	-44.667	48.082	.879	-202.91	113.57
		2	39.667	48.082	.917	-118.57	197.91
		3	-2.333	48.082	1.000	-160.57	155.91
		5	1.333	48.082	1.000	-156.91	159.57
	5	1	-46.000	48.082	.868	-204.24	112.24
		2	38.333	48.082	.926	-119.91	196.57
		3	-3.667	48.082	1.000	-161.91	154.57
		4	-1.333	48.082	1.000	-159.57	156.91
Postest	1	2	71.333*	13.517	.003	26.85	115.82
		3	34.333	13.517	.157	-10.15	78.82
		4	38.333	13.517	.101	-6.15	82.82
		5	69.333*	13.517	.003	24.85	113.82
	2	1	-71.333*	13.517	.003	-115.82	-26.85
		3	-37.000	13.517	.117	-81.49	7.49
		4	-33.000	13.517	.181	-77.49	11.49
		5	-2.000	13.517	1.000	-46.49	42.49
	3	1	-34.333	13.517	.157	-78.82	10.15
		2	37.000	13.517	.117	-7.49	81.49
		4	4.000	13.517	.998	-40.49	48.49
		5	35.000	13.517	.146	-9.49	79.49
	4	1	-38.333	13.517	.101	-82.82	6.15
		2	33.000	13.517	.181	-11.49	77.49
		3	-4.000	13.517	.998	-48.49	40.49
		5	31.000	13.517	.224	-13.49	75.49

5	1	-69.333*	13.517	.003	-113.82	-24.85
	2	2.000	13.517	1.000	-42.49	46.49
	3	-35.000	13.517	.146	-79.49	9.49
	4	-31.000	13.517	.224	-75.49	13.49

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

Gambar 5. Hasil Uji Homogeus Subsets

Puasa

Tukey HSD[a]

Kelompok	N	Subset for alpha = 0.05 1
2	3	77.00
5	3	83.00
4	3	84.00
3	3	87.00
1	3	88.00
Sig.		.299

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3,000.

Pretest

Tukey HSD[a]

Kelompok	N	Subset for alpha = 0.05 1
2	3	223.67
5	3	262.00
4	3	263.33
3	3	265.67
1	3	308.00
Sig.		.447

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3,000.

Postest

Tukey HSD[a]

Kelompok	N	Subset for alpha = 0.05	
		1	2
2	3	108.00	
5	3	110.00	
4	3	141.00	141.00
3	3	145.00	145.00
1	3		179.33
Sig.		.117	.101

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3,000.