LAMPIRAN

Lampiran 1. Data Hasil Pemeriksaan

1. Hasil Pemeriksaan *Uric Acid* Pada Kontrol Normal

Level	Hari	Pengulangan	*True Value*	Observasi
I	1	1	5,95	5,89 mg/dL
		2	5,95	5,92 mg/dL
		3	5,95	5,87 mg/dL
		4	5,95	5,90 mg/dL
		5	5,95	5,97 mg/dL
	2	1	5,95	5,85 mg/dL
		2	5,95	5,89 mg/dL
		3	5,95	5,94 mg/dL
		4	5,95	6,00 mg/dL
		5	5,95	5,97 mg/dL
	3	1	5,95	5,89 mg/dL
		2	5,95	5,93 mg/dL
		3	5,95	5,88 mg/dL
		4	5,95	5,80 mg/dL
		5	5,95	5,86 mg/dL
	4	1	5,95	5,90 mg/dL
		2	5,95	5,93 mg/dL
		3	5,95	5,97 mg/dL
		4	5,95	5,92 mg/dL
		5	5,95	5,89 mg/dL
	5	1	5,95	5,93 mg/dL
		2	5,95	5,94 mg/dL
		3	5,95	5,90 mg/dL
		4	5,95	5,91 mg/dL
		5	5,95	5,80 mg/dL

Lampiran 2. Data Hasil Pemeriksaan

2. Hasil Pemeriksaan *Uric Acid* pada Kontrol *High Pathologyst*

Level	Hari	Pengulangan	*True Value*	Observasi
II	1	1	8,16	8,20 mg/dL
		2	8,16	8,17 mg/dL
		3	8,16	8,13 mg/dL
		4	8,16	8,14 mg/dL
		5	8,16	8,11 mg/dL
	2	1	8,16	8.00 mg/dL
		2	8,16	8,12 mg/dL
		3	8,16	8,17 mg/dL
		4	8,16	8,11 mg/dL
		5	8,16	8,15 mg/dL
	3	1	8,16	8,14 mg/dL
		2	8,16	8,05 mg/dL
		3	8,16	8,08 mg/dL
		4	8,16	8.02 mg/dL
		5	8,16	8,10 mg/dL
	4	1	8,16	8,20 mg/dL
		2	8,16	8,21 mg/dL
		3	8,16	8,17 mg/dL
		4	8,16	8,15 mg/dL
		5	8,16	8,12 mg/dL
	5	1	8,16	8,03 mg/dL
		2	8,16	8,10 mg/dL
		3	8,16	8,13 mg/dL
		4	8,16	8,17 mg/dL
		5	8,16	8,11 mg/dL

Lampiran 3. ***Kit Insert Uric Acid***

BIOLABO
www.biolabo.fr
MANUFACTURER:
BIOLABO SAS,
Les Hautes Rives
02160, Maizy, France

URIC ACID Uricase method

Reagent for quantitative determination of uric acid in human serum and plasma, or urines.

REF 80351	**R1** 6 x 30 mL	**R2** 6 x 30 mL	**R3** 1 x 5 mL
REF 80001	**R1** 2 x 100 mL	**R2** 2 x 100 mL	**R3** 1 x 5 mL
REF 87601	**R1** 6 x 200 mL	**R2** 6 x 200 mL	**R3** 1 x 10 mL

TECHNICAL SUPPORT AND ORDERS
Tel : (33) 03 23 25 15 50
Fax: (33) 03 23 256 256

CE

IVD **IN VITRO DIAGNOSTIC USE**

CLINICAL SIGNIFICANCE (1) (2)

In humans, uric acid is the major product of the catabolism of the purine nucleosides, adenosine and guanosine.
Major causes of hyperuricemia are primary gout (due to metabolic overproduction of purines or underexcretion of uric acid), or secondary gout which may be due to renal diseases, administration of drugs (diuretics or chemiotherapeutic agents...) Hyperuricemia is also attributable to primary defects of enzymes in the pathway of purines metabolism or to hematologic disease.
Hypouricemia is much less common than hyperuricemia.

PRINCIPLE (1) (3)

Uricase acts on uric acid to produce allantoin, carbon dioxide and hydrogen peroxide. Hydrogen peroxide in the presence of peroxidase reacts with a chromogen (amino-antipyrine and dichloro-hydroxybenzen sulfonate) to yeld quinoneimine, a red coloured complex. The absorbance measured at 520 nm (490-530) is proportional to the amount of uric acid in the specimen.

REAGENTS

Vial R1 **ENZYMES**

Potassium hexacyanoferrate (II)	42	µmol/L
Peroxidase	≥ 450	U/L
Amino-antipyrine	0,150	mmol/L
Uricase	≥ 120	U/L

Vial R2 **BUFFER**

Dichlorohydroxybenzen sulfonate	2	mmol/L
Tris pH 8.0 at 25°C	50	mmol/L
Preservative		

Vial R3 **STANDARD**

Uric acid 10 mg/dL (595 µmol/L)

SAFETY CAUTIONS

BIOLABO reagents are designated for professional, in vitro diagnostic use.
- Verify the integrity of the contents before use.
- Use adequate protections (overall, gloves, glasses).
- Do not pipette by mouth.
- In case of contact with skin or eyes, thoroughly wash affected areas with plenty of water and seek medical advice.
- Reagents contain sodium azide (concentration < 0.1%) which may react with copper and lead plumbing. Flush with plenty of water when disposing.
- Material Safety Data Sheet is available upon request.
- Waste disposal: Respect legislation in force in the country.

All specimens should be handled as potentially infectious, in accordance with good laboratory practices using appropriate precautions. Respect legislation in force in the country.

REAGENTS PREPARATION

Vial R1: Use a non-sharp instrument to remove aluminium cap.
Add promptly the contents of vial R1 (Enzymes) into vial R2 (Buffer).
Mix gently until complete dissolution before using reagent (approximately 2 minutes).

STABILITY AND STORAGE

Store at 2-8°C, well recap in the original vial and away from light.
- Standard (vial R3): transfer requested quantity, well recap the vial and store at 2-8°C
- Reagent R1 (unopened) and reagents R2 and R3 are stable until expiry date stated on the label of the kit when stored and used as described.
- Once reconstituted, working reagent is stable for 1 month when free from contamination.
- Discard any reagent if cloudy or if absorbance at 520 nm > 0.100.
- Don't use working reagent after expiry date stated on the label.

SPECIMEN COLLECTION AND HANDLING (4)

Unhemolysed serum or plasma (Heparin or EDTA).
Urines: to be diluted (1+9) in demineralised water before assay.

Uric acid is stable in the specimen for:
- 3 days at room temperature.
- 1 week at 2-8°C.
- 6 months freezed at – 20°C.

Add NaOH to keep urine alkaline and to prevent uric acid precipitation.

INTERFERENCES (3) (5)

High bilirubin or ascorbic acid levels may result in negative interference. Grossly lipemic or hemolysed specimen can cause falsely increased uric acid values.
Patient under vitamin C therapy: In order to reduce acid ascorbic interference, let stand specimen 2 hours at room temperature before performing the assay.
For a more comprehensive review of factors affecting this assay refer to the publication of Young D.S.

MATERIAL REQUIRED BUT NOT PROVIDED

1.Basic medical analysis laboratory equipment.
2.Normal and pathological control sera.

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CALIBRATION

- Standard (vial R3) enclosed in the kit or BIOLABO Multicalibrator REF 95015 traceable to SRM 913a.
- Or any calibrator traceable to a reference method or material.

The calibration frequency depends on proper instrument functions and on the preservation of reagent.

It is recommended to calibrate in the following cases:

1. When using a new batch of reagent.
2. After maintenance operations on the instrument.
3. When control values are out of range, even after using a new vial of fresh serum.

QUALITY CONTROL

- BIOLABO EXATROL-N Level I REF 95010.
- BIOLABO EXATROL-P Level II REF 95011.
- Assayed control sera referring to the same method.
- External quality control program.

It is recommended to control in the following cases:

- At least once a run.
- At least once within 24 hours.
- When changing vial of reagent.
- After maintenance operations on the instrument.

If control is out of range, apply following actions:

1. Repeat the test with the same control.
2. If control is still out of range, prepare a fresh control serum and repeat the test.
3. If control is still out of range, use a new vial of calibrator or a fresh calibrator and repeat the test.
4. If control is still out of range, calibrate with a new vial of reagent.
5. If control is still out of range, please contact BIOLABO technical support or your local Agent.

EXPECTED VALUES (4)

Serum or plasma	URIC ACID mg/dL	URIC ACID [µmol/L]
Child(*)	2.0-5.5	[119-327]
Men	3.5-7.2	[208-428]
Women(**)	2.6-6.0	[155-357]

Urines	250-750 mg/24h	[1.48-4.43 mmol/24 h]

(*) Higher value in newborn.
(**) Lower during pregnancy.

Each laboratory should establish its own normal ranges for the population that it serves.

PERFORMANCES CHARACTERISTICS

Within run N = 20	Normal level	High level	Between run N = 20	Normal level	High level
Mean mg/dL	5.32	8.97	Mean mg/dL	5.26	9.02
S.D. mg/dL	0.049	0.049	S.D. mg/dL	0.12	0.12
C.V. %	0.9	0.55	C.V. %	2.2	1.3

Detection limit: approximately 0.3 mg/dL

Sensitivity for 10 mg/dL: approximately 0.370 Abs. at 520 nm.

Comparison study with commercially available reagent:

$y = 0{,}9953\ x - 0{,}025 \qquad r = 0{,}9923$

LINEARITY

The reaction is linear up to at least 20 mg/dL (1190 µmol/L).

Above, dilute specimen with saline solution and reassay taking into account dilution factor to calculate the result. Linearity limit depends on specimen/reagent ratio.

MANUAL PROCEDURE

Let stand reagent and specimens at room temperature.

Pipette into well identified test tubes:	Blank	Standard	Assay
Working Reagent	1 mL	1 mL	1 mL
Specimen (Note 1)			25 µL
Standard		25 µL	
Demineralised water	25 µL		

Mix. Let stands for 5 minutes at 25°C.
Record absorbance at 520 nm (490-530) against reagent blank.
Colour is stable for 30 minutes.

Notes:

1. Serum, plasma, or urines diluted (1+9) with demineralised water.
2. Specific procedures are available upon request for automated instruments. Please contact BIOLABO technical support.
3. Specimen: a 20 µL volume may be used (increased linearity but slightly decreased sensitivity)

CALCULATION

Calculate the result as follows:

Serum or plasma:

$$\text{Result} = \frac{\text{Abs (Assay)}}{\text{Abs (Standard)}} \times \text{Standard concentration}$$

Diluted urines (1+ 9): Multiply the above result by dilution factor 10.

REFERENCES

(1) *TIETZ N.W. Text book of clinical chemistry, 3rd Ed. C.A. Burtis, E.R. Ashwood, W.B. Saunders (1999) p. 1245-1250.*
(2) *BERNARD S. Biochimie clinique - Instruments et techniques de laboratoire - Diagnostiques médicaux chirurgicaux.2ème éd.1989 p153-156 Ed. MALOINE PARIS.*
(3) *FOSSATI, P., PRENCIPE L., and BERTI G., Use of 3.5-dichloro-2-Hydroxybenzene sulfonic acid / 4 Amino phenazone chromogenic system in direct enzymatic assays of uric acid in serum and urine. Clin. Chem.: 26(227-231) 1980*
(4) *Clinical Guide to Laboratory Test, 4th Ed., N.W. TIETZ (2006) p. 1098-1099.*
(5) *YOUNG D.S., Effect of Drugs on Clinical laboratory Tests, 4th Ed. (1995) p 3-609 to 3-622*
(6) *SRM: Standard Reference Material ®*

Manufacturer | Use by | IVD In vitro diagnostic | Temperature limitation | REF Catalogue number | See insert | LOT Batch number | Store away from light | sufficient for | → dilute with

Made in France Latest revision : www.biolabo.fr Revision : 25/07/2011

Lampiran 4. *Kit Insert* Kontrol Normal

BIOLABO
www.biolabo.fr
MANUFACTURER:
BIOLABO SAS,
Les Hautes Rives
02160, Maizy, France

BIOLABO EXATROL-N Level 1

Quality control serum for clinical biochemistry analysis

REF 95010 **R1** 10 x 5 mL **R2** 1 x 60 mL

TECHNICAL SUPPORT AND ORDERS
Tel : (33) 03 23 25 15 50
Fax: (33) 03 23 256 256

CE

IVD **IN VITRO DIAGNOSTIC USE**

PRINCIPLE AND INTENTED USE

BIOLABO EXATROL-N is a quality control serum for clinical chemistry analysis (substrates, electrolytes, lipids, enzymes and proteins), suitable for manual procedure or automated instruments. BIOLABO EXATROL-N is for use to monitor accuracy and precision of indicated methods and analytes.

REAGENTS

vial R1 **Lyophilised bovine serum**

vial R2 **Diluent**

BIOLABO EXATROL-N analytes are as follows:

Enzymes:	ALT (GPT), AST (GOT), Amylase, Gamma-GT, Alkaline phosphatases (ALP), total (PAT) and prostatic (PAP) acid phosphatases, Lactate dehydrogenase (LDH), Creatine Kinase (CK), Lipase pancreatic
Electrolytes:	Calcium, Chlorides, Iron, TIBC, UIBC, Magnesium, Inorganic phosphorus.
Proteins:	Total protein, Albumin
Lipids:	Total Cholesterol, Triglycerides
Substrates:	Total and direct Bilirubin, Creatinine, Glucose, Urea, Uric acid.

Added enzymes are from animal origin.
The concentrations/activities of each analyte are batch-specific and usually in the normal range or in the normal/pathological threshold.

SAFETY CAUTIONS (1) (2)

BIOLABO reagents are designated for professional, in vitro diagnostic use.
- Verify the integrity of the contents before use.
- This serum and all specimens should be handled as potentially infectious, in accordance with good laboratory practices using appropriate precautions. Respect legislation in force in the country.
- Use adequate protections (overall, gloves, glasses).
- Do not pipette by mouth.
- In the event of exposure the directive of the responsible health authorities should be followed.
- Material Safety Data Sheet is available upon request.

Waste disposal: Respect legislation in force in the country.

REAGENTS PREPARATION

1-Carefully open one bottle of vial R1 avoiding the loss of lyophilisate.
2-Pipette into vial R1 exactly 5 mL of diluent (vial R2).
3-Carefully close the bottle.
4-Let stand at room temperature and away from light for 15-30 minutes.
5-Dissolve the contents by occasional gentle swirling (avoiding the formation of foam).
6-Lyophilisate should be completely dissolved before use.

WARNING: Do not shake. Store away from light.

Notes:
- For CK determination, diluent with a temperature below 10°C should be used.
- For ALP determination, allow the reconstituted serum to stand for one hour at room temperature.
- CK and bilirubin are light-sensitive.

MATERIAL REQUIRED BUT NOT PROVIDED

1. Basic medical analysis laboratory equipment.
2. Reagents and standards/multicalibrator.

STABILITY AND STORAGE

Store at 2 - 8°C, well capped in the original vial and away from light.
- Unopened: Lyophilised sera (vial R1) and diluent (vial R2) are stable until expiry date stated on the label.
- Vial R2: stored and used as described in the insert, well recapped in the original vial and without contamination, contents of vial R2 is stable until expiry date stated on the label of the vial.
- Reconstituted serum: Transfer the requested quantity, recap and store at 2-8°C. Under these conditions, components are usually stable for:
  - ✓ **8 hours at 15-25°C.**
  - ✓ **7 days at 2-8°C.**
  - ✓ **30 days at –20°C. Aliquote and freeze once only.**

  Shorter stabilities in reconstituted serum apply to:
  1-Bilirubin, CK, LDH: 1-2% decrease per 7 days at –20°C.
  2-LDH: 3% decrease per 24 h at 2-8°C.

Discard reconstituted serum if cloudy or if absorbance of diluted serum (1+19) in saline solution measured at 600 nm > 0.060.
Don't use reconstituted serum after expiry date stated on the label of the vial.

INTERFERENCES

Factors which may influence results are bacterial contamination, precision of the volume dispensed during reconstitution, respect of automated instrument procedure, temperature control...

PROCEDURE

This control serum should be used with reagents or kits referring to the same method in accordance with technical data sheet of the reagent in use. BIOLABO EXATROL-N has to be handled as patient serum.

CALIBRATION

Refer to technical sheet of the reagent in use.

QUALITY CONTROL

It is recommended to:
- ✓ Participate to external quality control program.
- ✓ Control with frequency stated in technical sheet of the reagent in use.
- ✓ Validate target values and ranges when using other reagents that BIOLABO reagents.

ASSIGNATED VALUES AND RANGES (3) (4)

Refer to indicated values.
Target values and range are obtained by using:
- BIOLABO reagents and calibrators traceable to a reference method or material.
- Recommended and validated statistical techniques.
- Metrologically controlled instrument.

Target values are the mean of values obtained during several determinations of each analyte and range are ±2 or 3 standard deviations.

It is recommended that each laboratory validate each new batch-specific values before use. For an optimal use, laboratories should establish their own targets and ranges. These values have to be periodically retested.

REFERENCES

(1) *Occupational Safety and Health Standards ; Bloodborne pathogens (29CFR1910.1030) Federal Register July 1, (1998) ; 6, p.267-280*
(2) *Directive du conseil de l'Europe (90/679/CEE) J. O. de la communauté européenne n°L374 du 31.12.1990,p.1-12*
(3) *A. VASSAULT et Al., Ann. Biol. clin., 1986, 44, 686-745*
(4) *Data on file at BIOLABO Diagnostics*

Manufacturer | Use by | IVD In vitro diagnostic | Temperature limitation | REF Catalogue number | See insert | LOT Batch number | Store away from light | Σ sufficient for | → dilute with

Made in France | Latest revision : www.biolabo.fr | version : 28/07/2011

Lampiran 5. *Kit Insert* Kontrol *Pathologyst*

BIOLABO
www.biolabo.fr
MANUFACTURER:
BIOLABO SAS,
Les Hautes Rives
02160, Maizy, France

BIOLABO EXATROL-P Level 2

Quality control serum for clinical biochemistry analysis

REF 95011 **R1** 10 x 5 mL **R2** 1 x 60 mL

TECHNICAL SUPPORT AND ORDERS
Tel : (33) 03 23 25 15 50
Fax: (33) 03 23 256 256

CE

IVD IN VITRO DIAGNOSTIC USE

PRINCIPLE AND INTENTED USE

BIOLABO EXATROL-P is a quality control serum for clinical chemistry analysis (substrates, electrolytes, lipids, enzymes and proteins), suitable for manual procedure or automated instruments. BIOLABO EXATROL-P is for use to monitor accuracy and precision of indicated methods and analytes.

REAGENTS

vial R1 **Lyophilised bovine serum**

vial R2 **Diluent**

BIOLABO EXATROL-P analytes are as follows:

Enzymes:	ALT (GPT), AST (GOT), Amylase, Gamma-GT, Alkaline phosphatases (ALP), total (PAT) and prostatic (PAP) acid phosphatases, Lactate dehydrogenase (LDH), Creatine Kinase (CK), Lipase pancreatic
Electrolytes:	Calcium, Chlorides, Iron, TIBC, UIBC, Magnesium, Inorganic phosphorus.
Proteins:	Total protein, Albumin
Lipids:	Total Cholesterol, Triglycerides
Substrates:	Total and direct Bilirubin, Creatinine, Glucose, Urea, Uric acid.

Added enzymes are from animal origin.
The concentrations/activities of each analyte are batch-specific and usually in the pathological range.

SAFETY CAUTIONS (1) (2)

BIOLABO reagents are designated for professional, in vitro diagnostic use.
- Verify the integrity of the contents before use.
- This serum and all specimens should be handled as potentially infectious, in accordance with good laboratory practices using appropriate precautions. Respect legislation in force in the country.
- Use adequate protections (overall, gloves, glasses).
- Do not pipette by mouth.
- In the event of exposure the directive of the responsible health authorities should be followed.
- Material Safety Data Sheet is available upon request.

Waste disposal: Respect legislation in force in the country.

REAGENTS PREPARATION

1-Carefully open one bottle of vial R1 avoiding the loss of lyophilisate.
2-Pipette into vial R1 exactly 5 mL of diluent (vial R2).
3-Carefully close the bottle.
4-Let stand at room temperature and away from light for 15-30 minutes.
5-Dissolve the contents by occasional gentle swirling (avoiding the formation of foam).
6-Lyophilisate should be completely dissolved before use.

WARNING: Do not shake. Store away from light.

Notes:
- For CK determination, diluent with a temperature below 10°C should be used.
- For ALP determination, allow the reconstituted serum to stand for one hour at room temperature.
- CK and bilirubin are light-sensitive.

MATERIAL REQUIRED BUT NOT PROVIDED

1. Basic medical analysis laboratory equipment.
2. Reagents and standards/multicalibrator.

STABILITY AND STORAGE

Store at 2 - 8°C, well capped in the original vial and away from light.
- Unopened: Lyophilised sera (vial R1) and diluent (vial R2) are stable until expiry date stated on the label.
- Vial R2: stored and used as described in the insert, well recapped in the original vial and without contamination, contents of vial R2 is stable until expiry date stated on the label of the vial.
- Reconstituted serum: Transfer the requested quantity, recap and store at 2-8°C. Under these conditions, indicated are usually stable for:
  - ✓ **8 hours at 15-25°C.**
  - ✓ **7 days at 2-8°C.**
  - ✓ **30 days at –20°C. Aliquote and freeze once only.**

  Shorter stabilities in reconstituted serum apply to:
  1-Bilirubin, CK, LDH: 1-2% decrease per 7 days at –20°C.
  2-LDH: 3% decrease per 24 h at 2-8°C.

Discard reconstituted serum if cloudy or if absorbance of diluted serum (1+19) in saline solution measured at 600 nm > 0.060.
Don't use reconstituted serum after expiry date stated on the label of the vial.

INTERFERENCES

Factors which may influence results are bacterial contamination, precision of the volume dispensed during reconstitution, respect of automated instrument procedure, temperature control...

PROCEDURE

This control serum should be used with reagents or kits referring to the same method in accordance with technical data sheet of the reagent in use. BIOLABO EXATROL-P has to be handled as patient serum.

CALIBRATION

Refer to technical sheet of the reagent in use.

QUALITY CONTROL

It is recommended to:
- ✓ Participate to external quality control program.
- ✓ Control with frequency stated in technical sheet of the reagent in use.
- ✓ Validate target values and ranges when using other reagents that BIOLABO reagents.

ASSIGNATED VALUES AND RANGES (3) (4)

Refer to indicated values. Target and ranges are obtained by using:
- BIOLABO reagents and calibrators traceable to a reference method or material.
- Recommended and validated statistical techniques.
- Metrologically controlled instrument.

Target values are the mean of values obtained during several determinations of each analyte and range values are ± 2 or 3 standard deviations.
It is recommended that each laboratory validate each new batch-specific values before use. For an optimal use, laboratories should establish their own targets and ranges. These values have to be periodically retested.

REFERENCES

(1) *Occupational Safety and Health Standards ; Bloodborne pathogens (29CFR1910.1030) Federal Register July 1, (1998) ; 6, p.267-280*
(2) *Directive du conseil de l'Europe (90/679/CEE) J. O. de la communauté européenne n°L374 du 31.12.1990,p.1-12*
(3) *A. VASSAULT et Al., Ann. Biol. clin., 1986, 44, 686-745*
(4) *Data on file at BIOLABO Diagnostics*

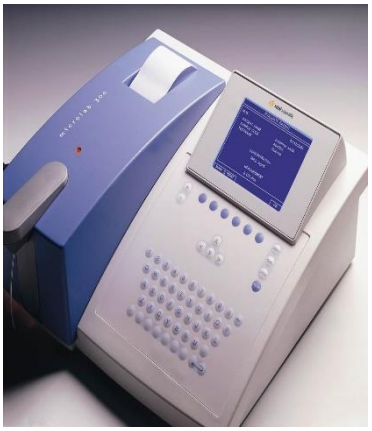
Manufacturer | Use by | IVD In vitro diagnostic | Temperature limitation | REF Catalogue number | See insert | LOT Batch number | Store away from light | sufficient for | → dilute with

Made in France | Latest Revision : www.biolabo.fr | Revision : 28/07/2011

Lampiran 6. Daftar *TEa Routine Chemistry, Clinical Laboratory Improvement Amandements.*

Routine Chemistry	
Test or Analyte	Acceptable Performance
Albumin	Target value ±10%
Aspartat Aminotransferase (AST)	Target value ± 20%
Bilirubin, total	Target value ± 0,4 mg/dl or ± 20% (greater)
Cholesterol total	Target value ± 10%
Creatinine	Target value ± 0,3 mg/dl or ± 15% (greater)
Glucose	Target value ± 10%
Lactat Dehydrogenase (LDH)	Target value ± 20%
Magnesium	Target value ± 25%
Total Protein	Target value ± 10%
Triglycerides	Target value ± 25%
Urea Nitrogen	Target value ± 2 mg/dl or ± 9% (greater)
Uric Acid	Target Value ± 17%

Lampiran 7. Alat dan bahan penelitian

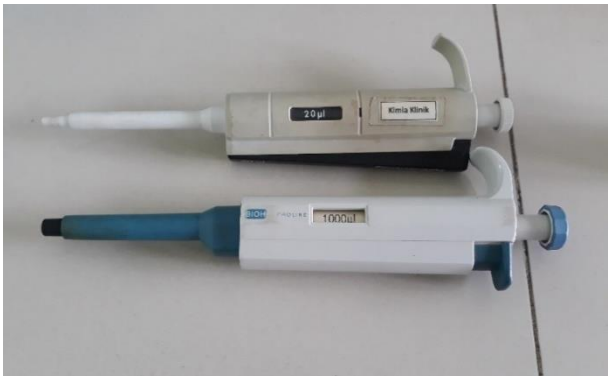


Fotometer Microlab 300

Rak, Tabung reaksi dan sampel.

Reagen dan standar *uric acid*

Tip Biru dan Tip Kuning



Mikropipet

Lampiran 8. Lembar Bimbingan

POLITEKNIK KESEHATAN BANDUNG

LEMBAR LOG BIMBINGAN PROPOSAL DAN LAPORAN TUGAS AKHIR

NAMA : Ina Karlina

NIM : P17334117060

NAMA PEMBIMBING : Sonny Feisal Rinaldi, S.Pd, M.Kes

No	Materi Bimbingan	Waktu	Tandatangan Mahasiswa	Tandatangan Pembimbing
1	Diskusi bab 1 dan penelusuran pustaka	20 Desember 2019		
2	Perbaikan latar belakang dan rumusan masalah	24 Desember 2019		
3	Diskusi hasil perbaikan bab 1 dan penelusuran pustaka impresisi, bias pada bab 2	6 Januari 2020		
4	Penelusuran pustaka mengenai *Investigation failure* untuk bab 2	9 Januari 2020		
5	Pemilihan pustaka dan penambahan materi *Investigation failure* pada bab 2	13 Januari 2020		

6	Perbaikan definisi operasional	15 Januari 2020		
7	Diskusi hasil perbaikan bab 2 dan penjelasan uji statistik untuk bab 3	17 Januari 2020		
8	Diskusi mengenai penentuan bias dengan uji regresi linier pada bab 3	28 Januari 2020		
9	Persiapan materi presentasi	6 Februari 2020		
10	Perbaikan proposal penelitian dan diskusi mengenai penelitian	12 Februari 2020		
11	Diskusi hasil penelitian untuk bab 4	16 Mei 2020		
12	Pengolahan data	20 Mei 2020		
13	Pengolahan data	4 Juni 2020		
14	Diskusi mengenai *Medical Decision Level*	14 Juni 2020		
15	Diskusi mengenai grafik *Levey-Jennings* bahan kontrol	8 Juli 2020		
16	Diskusi bab 4-5	13 Juli 2020		
17	Persiapan materi presentasi	21 Juli 2020		