

DAFTAR LAMPIRAN

Lampiran 1. Determinasi herba pegagan



INSTITUT TEKNOLOGI BANDUNG

SEKOLAH ILMU DAN TEKNOLOGI HAYATI

Jalan Ganesa 10 Bandung 40132, Telp.: (022) 251 1575, 250 0258, Fax.: (022) 253 4107
e-mail: sith@itb.ac.id <http://www.sith.itb.ac.id>

Nomor : 413/IT1.C11.2/TA.00/2022
Hal : Determinasi tumbuhan

24 Januari 2022

Kepada Yth.
Dekan
Fakultas Farmasi
Universitas Bhakti Kencana
Jalan Soekarno Hatta No. 754
Bandung

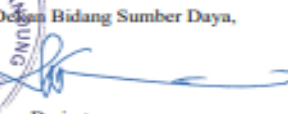
Memperhatikan surat permintaan Saudara dalam surat No. 0144/03.FF-03/UBK/1/2022 tanggal 21 Januari 2022 mengenai determinasi tumbuhan, dengan ini kami sampaikan bahwa setelah dilakukan determinasi oleh staf kami, sampel tumbuhan yang dikirim oleh Sdr. Ririt Saeruroh (NPM: 201FF04013), adalah:

No	Nama sampel	Hasil determinasi	Famili
1	Pegagan	<i>Centella asiatica</i> (L.) Urb.	Apiaceae

Referensi:

1. Backer, C.A., & Bakhuizen van den Brink, R.C. (1965). *Flora of Java*. Vol. II. Groningen, The Netherlands: NVP Noordhoff. pp. 173.

Demikian yang kami sampaikan. Atas perhatian dan kerjasama yang diberikan, kami ucapkan terima kasih.


 Wakil Dekan Bidang Sumber Daya,
Dr. Angga Dwiartama
 NIP. 198302052012121002

Tembusan:
Dekan SITH ITB, sebagai laporan.

Terakreditasi oleh :



Lampiran 2. Gambar lampiran susut pengeringan

Nama Daerah	Susut Pengeringan
Pangandaran	
Sukabumi	
Bogor	
Sumedang	
Manoko	

Lampiran 3. Kadar air

Nama Daerah	Volume Awal (ml)	Volume Akhir (ml)	Hasil Perhitungan
Pangandaran			$\frac{2,1-2}{2g} \times 100\%$ $= 5\%$
Sukabumi			$\frac{2,15-2}{2g} \times 100\%$ $= 7,5\%$
Bogor			$\frac{2,05-2}{2g} \times 100\%$ $= 2,5\%$
Sumedang			$\frac{2,1-2}{2g} \times 100\%$ $= 5\%$
Manoko			$\frac{2,5-2}{2g} \times 100\%$ $= 2,5\%$

Lampiran 4.Kadar sari larut air

Nama Daerah	Cawan Kosong (gr)	Cawan + Sari (gr)	Hasil Perhitungan
Pangandaran	47.22	47.73	$\frac{47.73-47.22}{5} - \frac{100}{20}$ $\times 100\% = 51\%$
Sukabumi	50,83	51.32	$\frac{51.32-50.83}{5} - \frac{100}{20}$ $\times 100\% = 51\%$
Bogor	51.26	51.75	$\frac{51.75-51.26}{5} - \frac{100}{20}$ $\times 100\% = 49\%$
Sumedang	47.19	47.56	$\frac{47.56-57.19}{5} - \frac{100}{20}$ $\times 100\% = 37\%$
Manoko	51.27	51.64	$\frac{51.64-51.27}{5} - \frac{100}{20}$ $\times 100\% = 37\%$

Lampiran 5. Kadar sari larut etanol

Nama Daerah	Cawan Kosong (gr)	Cawan + Sari (gr)	Hasil Perhitungan
Pangandaran	50.83	51.19	$\frac{51.19-50.83}{5} - \frac{100}{20}$ $\times 100\% = 36\%$
Sukabumi	47.22	47.59	$\frac{47.59-47.22}{5} - \frac{100}{20}$ $\times 100\% = 37\%$
Bogor	68.94	69.37	$\frac{69.37-68.94}{5} - \frac{100}{20}$ $\times 100\% = 43\%$
Sumedang	68.94	69.21	$\frac{69.21-68.94}{5} - \frac{100}{20}$ $\times 100\% = 27\%$
Manoko	47.20	47.53	$\frac{47.20-47,53}{5} - \frac{100}{20}$ $\times 100\% = 33\%$

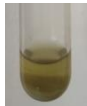
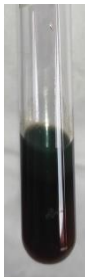
Lampiran 6. Kadar abu total

Nama Daerah	Krus Kosong (gr)	Krus +abu sisa pijar (gr)	Hasil Perhitungan
Pangandaran	24.59	24.82	$\frac{24.82-24.59}{2} \times 100\% = 11,5\%$
Sukabumi	25.05	25.25	$\frac{25.25-25.05}{2} \times 100\% = 10\%$
Bogor	29.67	29.86	$\frac{29.86-29.67}{5} \times 100\% = 9.5\%$
Sumedang	24.71	24.92	$\frac{24.92-24.71}{2} \times 100\% = 10.5\%$
Manoko	24.22	24.45	$\frac{24.45-24.22}{2} \times 100\% = 11.5\%$

Lampiran 7. Kadar abu tidak larut asam

Nama Daerah	Krus Kosong (gr)	Krus +abu sisa pijar (gr)	Hasil Perhitungan
Pangandaran	24.58	24.60	$\frac{24.60-24.58}{2} \times 100\% = 1\%$
Sukabumi	25.05	25.06	$\frac{25.06-25.05}{2} \times 100\% = 0.5\%$
Bogor	29.67	29.70	$\frac{29.70-29.67}{2} \times 100\% = 1.5\%$
Sumedang	24.71	24.73	$\frac{24.73-24.71}{2} \times 100\% = 1\%$
Manoko	24.22	24.24	$\frac{24.24-24.22}{2} \times 100\% = 1\%$

Lampiran 8. Skrining fitokimia ekstrak pegagan

Golongan Senyawa	Manoko	Sukabumi	Pangandaran	Bogor	Sumedang
Alkaloid	 Dragendorff (+)	 Dragendorff (+)	 Dragendorff (+)	 Dragendorff (+)	 Dragendorff (+)
	 Burchard (+)	 Burchard (+)	 Burchard (+)	 Burchard (+)	 Burchard (+)
	 Mayer (+)	 Mayer (+)	 Mayer (+)	 Mayer (+)	 Mayer (+)
Saponin	 (+)	 (+)	 (+)	 (+)	 (+)
Tanin	 (+)	 (+)	 (+)	 (+)	 (+)
Kuinon	 (+)	 (+)	 (+)	 (+)	 (+)

Flavonoid



(+)



(+)



(+)



(+)



(+)

Triterpenoid
/ Steroid



(+)



(+)



(+)



(+)



(+)

Lampiran 9. Optimasi kosentrasi baku asiaticosida 15,62 ppm



PT INAKROM TEKNOLOGI ANALITIKA

Laboratory supply - Consumable LC GC - Reagent - Instrument - Analysis

Jl. Nanjung KM. 2, Sayuran Lagadar, Kec. Margaasih, Kab. Bandung

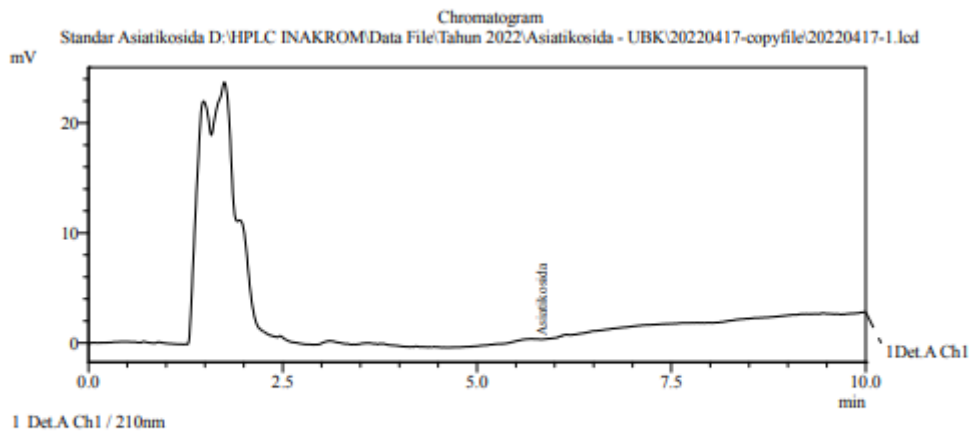
Hp. 0896 7768 8680, E-mail : pt.inakrom@gmail.com

ANALYSIS REPORT

Acquired by : Yusuf Eka Maulana
Sample Name : Standar Asiaticosida
Sample ID : 15,62 mg/l
Vial# : 1
Injection Volume : 20 uL
Data Filename : 20220417-1.lcd
Method Filename : Kondisi 1 As Ortofospat 0_1 ACN 50_50.lcm
Batch Filename : 20220417-B.lcb
Report Filename : Default.lcr
Date Acquired : 17/04/2022 13:56:48
Data Processed : 16/05/2022 11:15:39

Sample Information

<Chromatogram>



D:\HPLC INAKROM\Data File\Tahun 2022\Asiaticosida - UBK\20220417-copyfile\20220417-1.lcd

Detector A

ID#	Name	Ret. Time	Area	Area %	heoretical Plate	Resolution	Tailing Factor	k'
1	Asiaticosida	5.687	2902	35.351	2787.850	6.62	0.757	0.839

Lampiran 10. Optimasi optimasi kosentrasi baku asiatikosida 31,25 ppm

PT INAKROM TEKNO LAB ANALITIKA

Laboratory supply - Consumable LC GC - Reagent - Instrument - Analysis

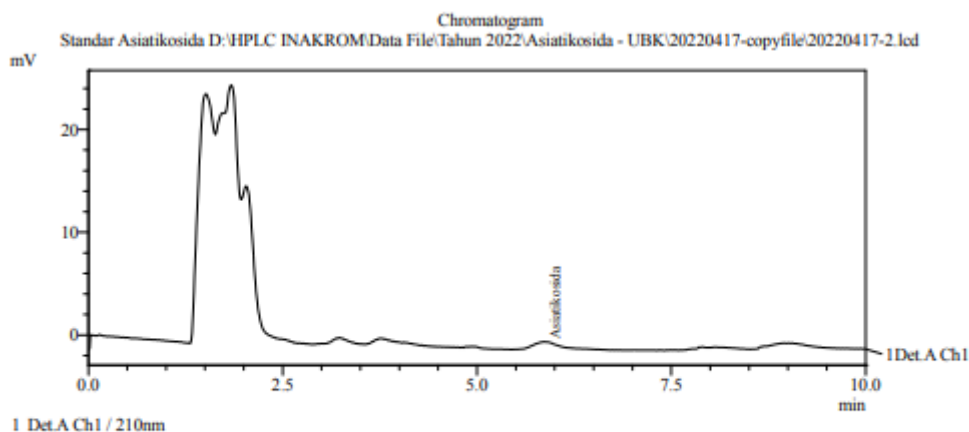
Jl. Nanjung KM. 2, Sayuran Lagadar, Kec. Margaasih, Kab. Bandung
Hp. 0896 7768 8680, E-mail : pt.inakrom@gmail.com

ANALYSIS REPORT

Sample Information

Acquired by : Yusuf Eka Maulana
Sample Name : Standar Asiatikosida
Sample ID : 31,25 mg/l
Vial# : 2
Injection Volume : 20 uL
Data Filename : 20220417-2.lcd
Method Filename : Kondisi 1 As Ortofospat 0_1 ACN 50_50.lcm
Batch Filename : 20220417-B.lcb
Report Filename : Default.lcr
Date Acquired : 17/04/2022 14:08:22
Data Processed : 16/05/2022 11:17:24

<Chromatogram>



D:\HPLC INAKROM\Data File\Tahun 2022\Asiatikosida - UBK\20220417-copyfile\20220417-2.lcd

Detector A

ID#	Name	Ret. Time	Area	Area %	heoretical Plate	Resolution	Tailing Factor	k'
1	Asiatikosida	5.862	11832	44.542	2183.113	6.06	1.190	0.817

Lampiran 11. Optimasi konsentrasi baku asiaticosida 62,5 ppm

PT INAKROM TEKNO LAB ANALITIKA

Laboratory supply - Consumable LC GC - Reagent - Instrument - Analysis

Jl. Nanjung KM. 2, Sayuran Lagadar, Kec. Margaasih, Kab. Bandung

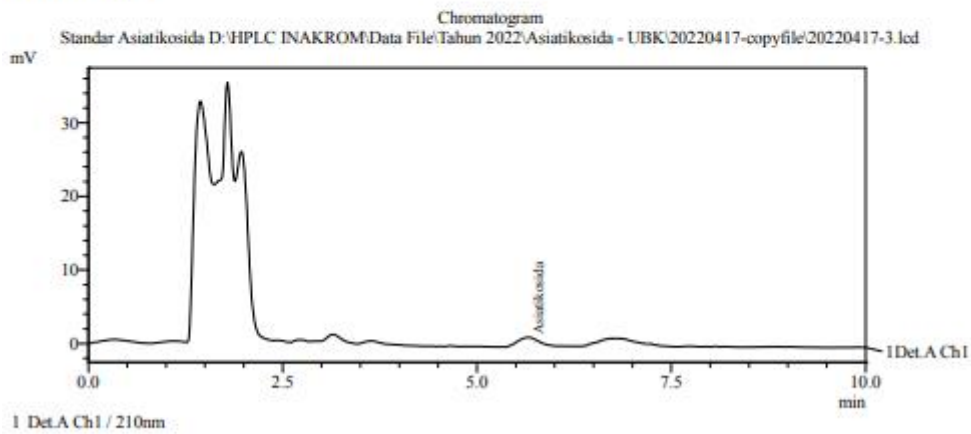
Hp. 0896 7768 8680, E-mail : pt.inakrom@gmail.com

ANALYSIS REPORT

Sample Information

Acquired by : Yusuf Eka Maulana
 Sample Name : Standar Asiaticosida
 Sample ID : 62,5 mg/l
 Vial# : 3
 Injection Volume : 20 uL
 Data Filename : 20220417-3.lcd
 Method Filename : Kondisi 1 As Ortospat 0_1 ACN 50_50.lcm
 Batch Filename : 20220417-B.lcb
 Report Filename : Default.lcr
 Date Acquired : 17/04/2022 14:19:55
 Data Processed : 16/05/2022 11:19:09

<Chromatogram>



D:\HPLC INAKROM\Data File\Tahun 2022\Asiaticosida - UBK\20220417-copyfile\20220417-3.lcd

ID#	Name	Ret. Time	Area	Area %	heoretical Plate	Resolution	Tailing Factor	k'
1	Asiaticosida	5.647	23090	35.574	1980.927	5.98	1.177	0.797

Lampiran 12. Optimasi konsentrasi baku asiatikosida 125 ppm

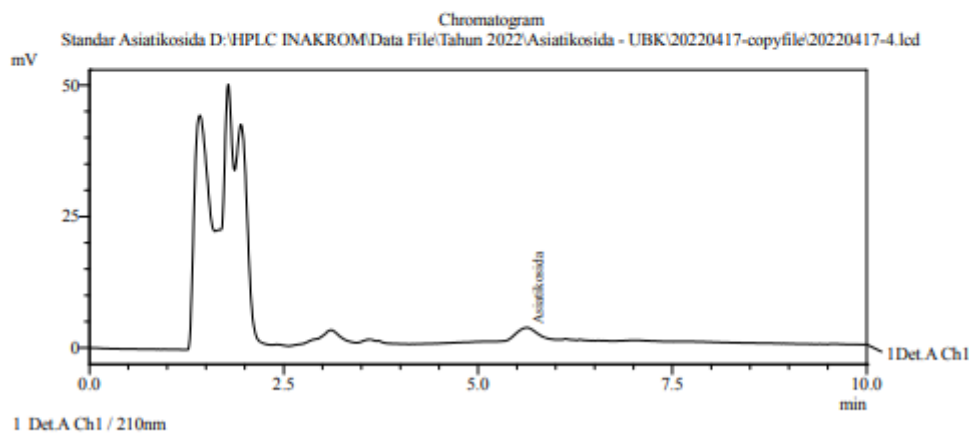


ANALYSIS REPORT

Sample Information

Acquired by : Yusuf Eka Maulana
Sample Name : Standar Asiatikosida
Sample ID : 125 mg/l
Vial# : 4
Injection Volume : 20 uL
Data Filename : 20220417-4.lcd
Method Filename : Kondisi 1 As Ortospat 0_1 ACN 50_50.lcm
Batch Filename : 20220417-B.lcb
Report Filename : Default.lcr
Date Acquired : 17/04/2022 14:31:28
Data Processed : 16/05/2022 11:21:03

<Chromatogram>



D:\HPLC INAKROM\Data File\Tahun 2022\Asiatikosida - UBK\20220417-copyfile\20220417-4.lcd

Detector A

ID#	Name	Ret. Time	Area	Area %	heoretical Plate	Resolution	Tailing Factor	k'
1	Asiatikosida	5.625	45766	54.411	2019.022	5.67	1.140	0.812

Lampiran 13. Optimasi kosenentrasi baku asiatikosida 250 ppm

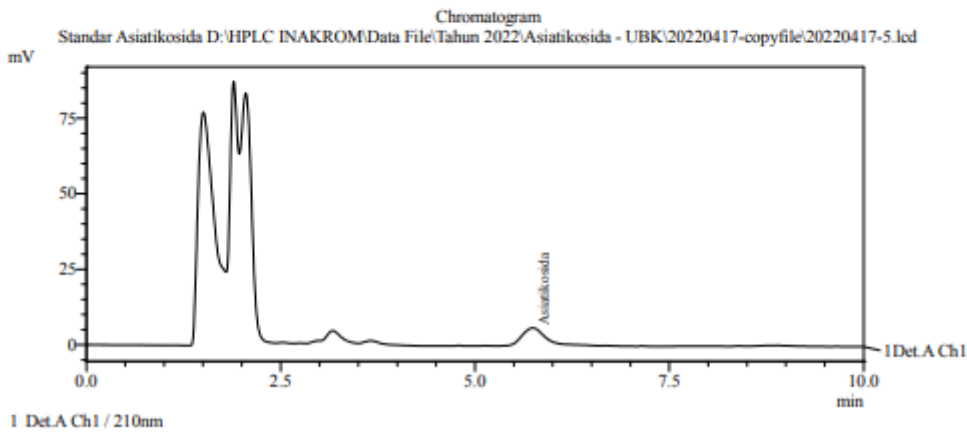


ANALYSIS REPORT

Sample Information

Acquired by : Yusuf Eka Maulana
Sample Name : Standar Asiatikosida
Sample ID : 250 mg/l
Vial# : 5
Injection Volume : 20 uL
Data Filename : 20220417-5.lcd
Method Filename : Kondisi 1 As Ortospat 0_1 ACN 50_50.lcm
Batch Filename : 20220417-B.lcb
Report Filename : Default.lcr
Date Acquired : 17/04/2022 14:43:02
Data Processed : 16/05/2022 11:22:15

<Chromatogram>



D:\HPLC INAKROM\Data File\Tahun 2022\Asiatikosida - UBK\20220417-copyfile\20220417-5.lcd

ID#	Name	Ret. Time	Area	Area %	heoretical Plate	Resolution	Tailing Factor	k'
1	Asiatikosida	5.736	106088	60.355	2059.945	6.03	1.178	0.811

Lampiran 14. Optimasi konsentrasi baku asiatikosida 500 ppm

PT INAKROM TEKNO LAB ANALITIKA

Laboratory supply - Consumable LC GC - Reagent - Instrument - Analysis

Jl. Nanjung KM. 2, Sayuran Lagadar, Kec. Margaasih, Kab. Bandung

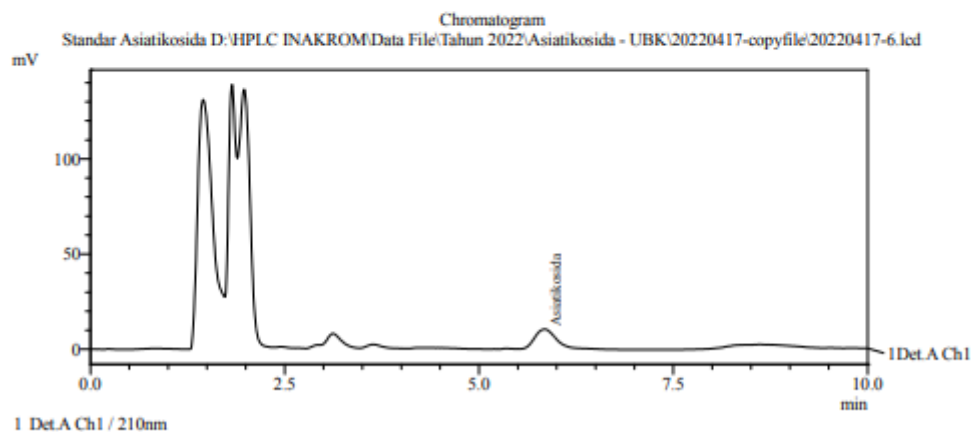
Hp. 0896 7768 8680, E-mail : pt.inakrom@gmail.com

ANALYSIS REPORT

Sample Information

Acquired by : Yusuf Eka Maulana
 Sample Name : Standar Asiatikosida
 Sample ID : 500 mg/l
 Vial# : 6
 Injection Volume : 20 uL
 Data Filename : 20220417-6.lcd
 Method Filename : Kondisi 1 As Ortospat 0_1 ACN 50_50.lcm
 Batch Filename : 20220417-B.lcb
 Report Filename : Default.lcr
 Date Acquired : 17/04/2022 14:54:34
 Data Processed : 16/05/2022 11:23:31

<Chromatogram>



D:\HPLC INAKROM\Data File\Tahun 2022\Asiatikosida - UBK\20220417-copyfile\20220417-6.lcd

Detector A

ID#	Name	Ret. Time	Area	Area %	heoretical Plate	Resolution	Tailing Factor	k'
1	Asiatikosida	5.841	213197	51.354	2180.921	6.38	1.455	0.874

Lampiran 15. Optimasi konsentrasi baku asiatikosida 1000 ppm

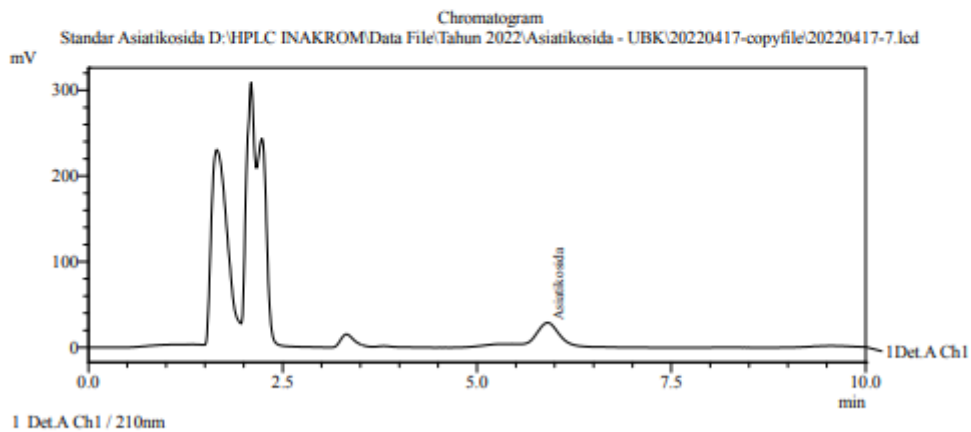


ANALYSIS REPORT

Sample Information

Acquired by : Yusuf Eka Maulana
Sample Name : Standar Asiatikosida
Sample ID : 1000 mg/l
Vial# : 7
Injection Volume : 20 uL
Data Filename : 20220417-7.lcd
Method Filename : Kondisi 1 As Ortospat 0_1 ACN 50_50.lcm
Batch Filename : 20220417-B.lcb
Report Filename : Default.lcr
Date Acquired : 17/04/2022 15:06:09
Data Processed : 16/05/2022 11:24:53

<Chromatogram>



D:\HPLC INAKROM\Data File\Tahun 2022\Asiatikosida - UBK\20220417-copyfile\20220417-7.lcd

Detector A

ID#	Name	Ret. Time	Area	Area %	heoretical Plate	Resolution	Tailing Factor	k'
1	Asiatikosida	5.905	481880	67.652	2243.751	6.26	1.165	0.780

Lampiran 16. Kromatogram ekstrak herba pegagan Bogor



PT INAKROM TEKNO LAB ANALITIKA

Laboratory supply - Consumable LC GC - Reagent - Instrument - Analysis

Jl. Nanjung KM. 2, Sayuran Lagadar, Kec. Margaasih, Kab. Bandung

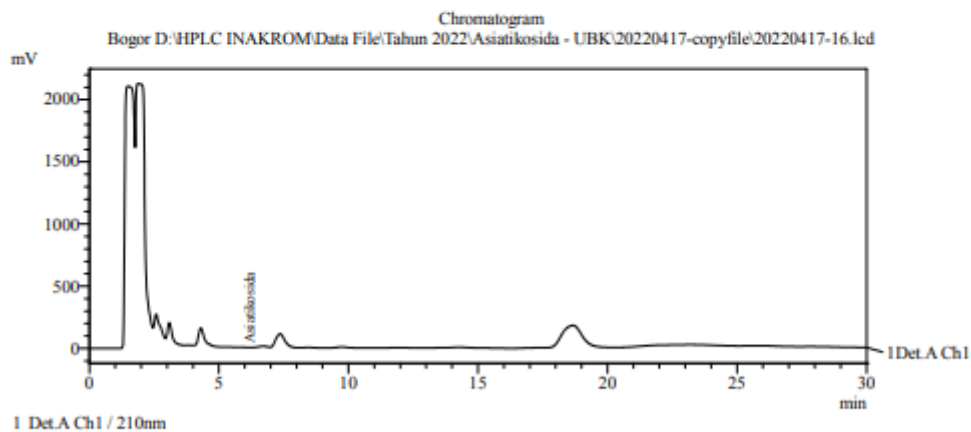
Hp. 0896 7768 8680, E-mail : pt.inakrom@gmail.com

ANALYSIS REPORT

Sample Information

Acquired by : Yusuf Eka Maulana
 Sample Name : Bogor
 Sample ID : 0,515 gr
 Vial# : 3
 Injection Volume : 20 uL
 Data Filename : 20220417-16.lcd
 Method Filename : Kondisi 1 As Ortospat 0_1 ACN 50_50.lcm
 Batch Filename : 20220417-ririt.lcb
 Report Filename : Default.lcr
 Date Acquired : 17/04/2022 20:43:06
 Data Processed : 16/05/2022 11:02:47

<Chromatogram>



D:\HPLC INAKROM\Data File\Tahun 2022\Asiatikosida - UBK\20220417-copyfile\20220417-16.lcd

Detector A

ID#	Name	Ret. Time	Area	Area %	heoretical Plate	Resolution	Tailing Factor	k'
1	Asiatikosida	5.753	250679	0.205	14.321	1.12	0.000	2.086

Lampiran 17. Kromatogram ekstrak herba pegagan Pangandaran



PT INAKROM TEKNO LAB ANALITIKA

Laboratory supply - Consumable LC GC - Reagent - Instrument - Analysis

Jl. Nanjung KM. 2, Sayuran Lagadar, Kec. Margaasih, Kab. Bandung

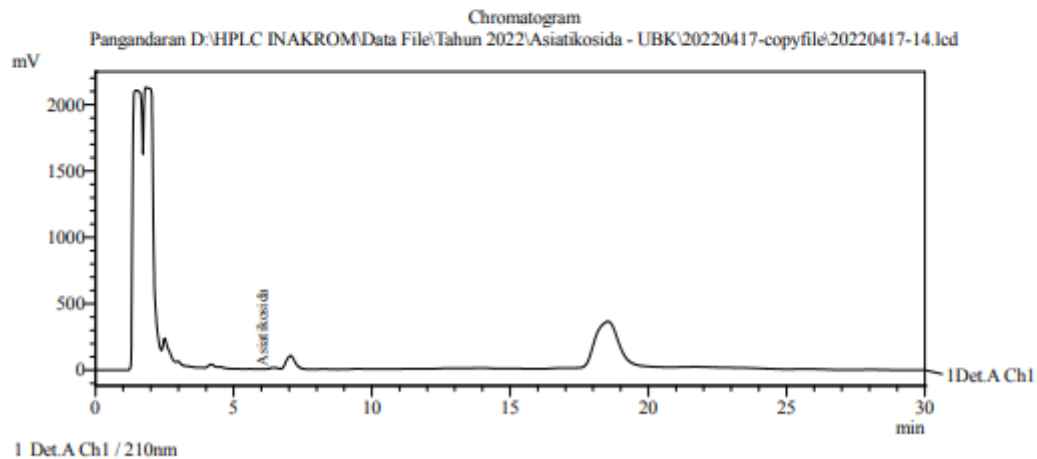
Hp. 0896 7768 8680, E-mail : pt.inakrom@gmail.com

ANALYSIS REPORT

Sample Information

Acquired by : Yusuf Eka Maulana
 Sample Name : Pangandaran
 Sample ID : 0,530 gr
 Vial# : 1
 Injection Volume : 20 uL
 Data Filename : 20220417-14.lcd
 Method Filename : Kondisi 1 As Ortospat 0_1 ACN 50_50.lcm
 Batch Filename : 20220417-ririt.lcb
 Report Filename : Default.lcr
 Date Acquired : 17/04/2022 19:40:00
 Data Processed : 16/05/2022 10:57:31

<Chromatogram>



D:\HPLC INAKROM\Data File\Tahun 2022\Asiatikosida - UBK\20220417-copyfile\20220417-14.lcd

Detector A

ID#	Name	Ret. Time	Area	Area %	heoretical Plate	Resolution	Tailing Factor	k'
1	Asiatikosida	5.580	190843	0.131	67.955	2.10	0.000	2.051

Lampiran 18. Kromatogram ekstrak herba pegagan Sumedang



PT INAKROM TEKNO LAB ANALITIKA

Laboratory supply - Consumable LC GC - Reagent - Instrument - Analysis

Jl. Nanjung KM. 2, Sayuran Lagadar, Kec. Margaasih, Kab. Bandung

Hp. 0896 7768 8680, E-mail : pt.inakrom@gmail.com

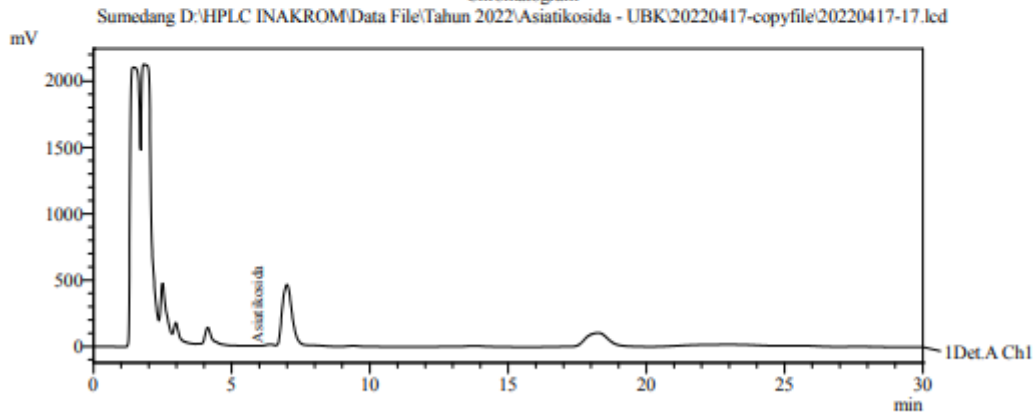
ANALYSIS REPORT

Sample Information

Acquired by : Yusuf Eka Maulana
 Sample Name : Sumedang
 Sample ID : 0.526 gr
 Vial# : 4
 Injection Volume : 20 uL
 Data Filename : 20220417-17.lcd
 Method Filename : Kondisi 1 As Ortospat 0_1 ACN 50_50.lcm
 Batch Filename : 20220417-ririt.lcb
 Report Filename : Default.lcr
 Date Acquired : 17/04/2022 21:14:39
 Data Processed : 16/05/2022 11:09:37

<Chromatogram>

Chromatogram



1 Det.A Ch1 / 210nm

D:\HPLC INAKROM\Data File\Tahun 2022\Asiatikosida - UBK\20220417-copyfile\20220417-17.lcd

Detector A

ID#	Name	Ret. Time	Area	Area %	heoretical Plate	Resolution	Failing Facto	k'
1	Asiatikosida	5.504	208959	0.162	82.930	2.25	0.000	2.035

Lampiran 19. Kromatogram ekstrak herba pegagan Sukabumi



PT INAKROM TEKNOLOGI ANALITIKA

Laboratory supply - Consumable LC GC - Reagent - Instrument - Analysis

Jl. Nanjung KM. 2, Sayuran Lagadar, Kec. Margaasih, Kab. Bandung

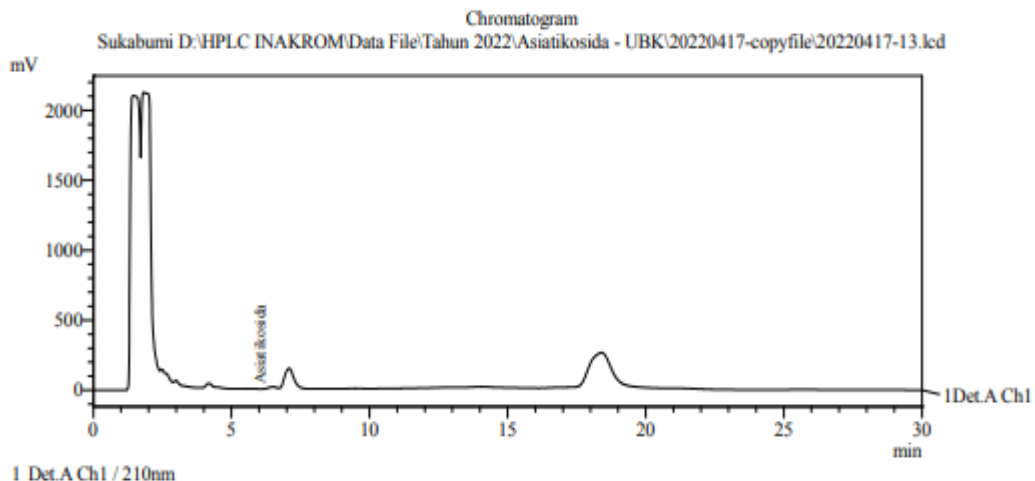
Hp. 0896 7768 8680, E-mail : pt.inakrom@gmail.com

ANALYSIS REPORT

Sample Information

Acquired by : Yusuf Eka Maulana
Sample Name : Sukabumi
Sample ID : 0,510
Vial# : 0
Injection Volume : 20 uL
Data Filename : 20220417-13.lcd
Method Filename : Kondisi 1 As Ortospat 0_1 ACN 50_50.lcm
Batch Filename : 20220417-rinit.lcb
Report Filename : Default.lcr
Date Acquired : 17/04/2022 19:08:28
Data Processed : 16/05/2022 10:58:55

<Chromatogram>



D:\HPLC INAKROM\Data File\Tahun 2022\Asiatikosida - UBK\20220417-copyfile\20220417-13.lcd

Detector A

ID#	Name	Ret. Time	Area	Area %	heoretical Plate	Resolution	Failing Factor	k'
1	Asiatikosida	5.603	263008	0.191	66.419	2.10	0.000	2.088

Lampiran 20. Kromatogram ekstrak herba pegagan Manoko



PT INAKROM TEKNO LAB ANALITIKA

Laboratory supply - Consumable LC GC - Reagent - Instrument - Analysis

Jl. Nanjung KM. 2, Sayuran Lagadar, Kec. Margaasih, Kab. Bandung

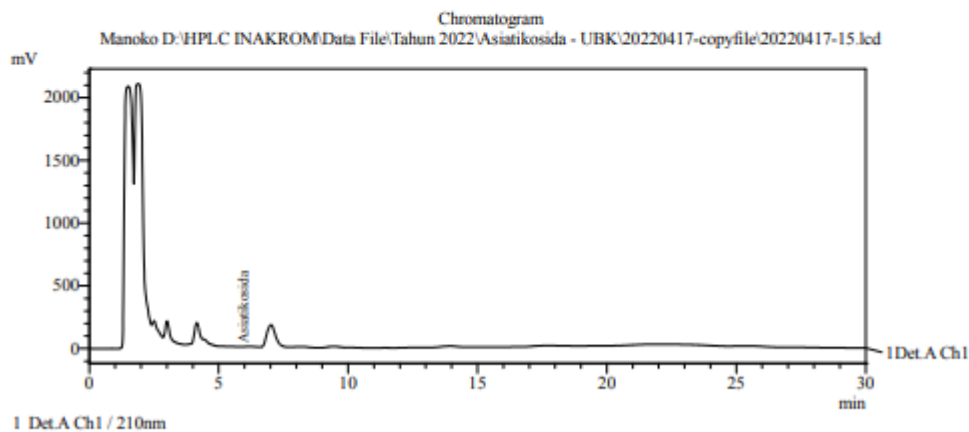
Hp. 0896 7768 8680, E-mail : pt.inakrom@gmail.com

ANALYSIS REPORT

Sample Information

Acquired by : Yusuf Eka Maulana
 Sample Name : Manoko
 Sample ID : 0,515 gr
 Vial# : 2
 Injection Volume : 20 uL
 Data Filename : 20220417-15.lcd
 Method Filename : Kondisi 1 As Ortofospat 0_1 ACN 50_50.lcm
 Batch Filename : 20220417-irit.lcb
 Report Filename : Default.lcr
 Date Acquired : 17/04/2022 20:11:34
 Data Processed : 16/05/2022 11:00:45

<Chromatogram>



D:\HPLC INAKROM\Data File\Tahun 2022\Asiatikosida - UBK\20220417-copyfile\20220417-15.lcd

Detector A

ID#	Name	Ret. Time	Area	Area %	heoretical Plate	Resolution	Tailing Factor	k'
1	Asiatikosida	5.505	351996	0.273	19.197	1.23	0.000	1.927

Lampiran 21. Surat pernyataan plagiarisme**SURAT PERNYATAAN**

Yang bertanda tangan di bawah ini,

Nama Ririt Sairuroh

N P M 201FF04013

Adalah mahasiswa Fakultas Farmasi, Universitas Bhakti Kencana, menyatakan dengan sesungguhnya bahwa Naskah Tugas Akhir/Skripsi yang saya tulis dengan judul:

**PENENTUAN KADAR ASIATIKOSIDA SEBAGAI SENYAWA PENANDA PADA
PEGAGAN DARI BEBERAPA DAERAH DI JAWA BARAT**

Adalah benar-benar merupakan hasil karya saya sendiri. Apabila di kemudian hari diketahui bahwa isi Naskah Skripsi ini merupakan hasil plagiasi, maka saya bersedia menerima sanksi berupa pembatalan kelulusan dan atau pencabutan gelar yang saya peroleh.

Demikian surat pernyataan ini saya buat untuk dapat dipergunakan sebagaimana mestinya.

Bandung, 8 Agustus 2022

Yang membuat pernyataan,



Ririt Sairuroh

Lampiran 22. Surat pernyataan publikasi**SURAT PERNYATAAN**

Yang bertanda tangan di bawah ini,

Nama Ririt Sairuroh

N P M 201FF04013

Menyatakan bahwa demi kepentingan perkembangan ilmu pengetahuan, saya menyetujui abstrak Skripsi yang saya tulis dengan judul:

**PENENTUAN KADAR ASIATIKOSIDA SEBAGAI SENYAWA PENANDA PADA
PEGAGAN DARI BEBERAPA DAERAH DI JAWA BARAT**

Untuk dipublikasikan atau ditampilkan di internet atau media lain yaitu Digital Library Perpustakaan Universitas Bhakti Kencana untuk kepentingan akademik, sebatas sesuai dengan Undang-Undang Hak Cipta.

Demikian surat pernyataan ini saya buat untuk dapat dipergunakan sebagaimana mestinya.

Bandung, 8 Agustus 2022

Yang membuat pernyataan,



METERAI
TEMPEL
CASCEAJX942479894

Ririt Sairuroh

NPM 201FF04013