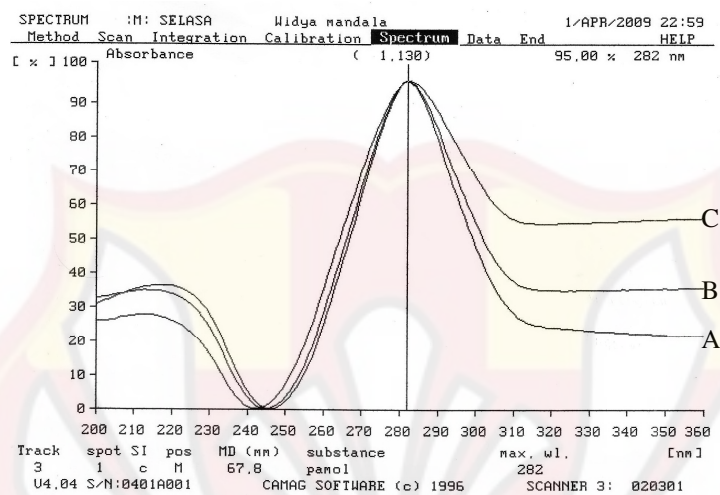


LAMPIRAN A

GAMBAR SCAN SPEKTRUM EUGENOL



C

B

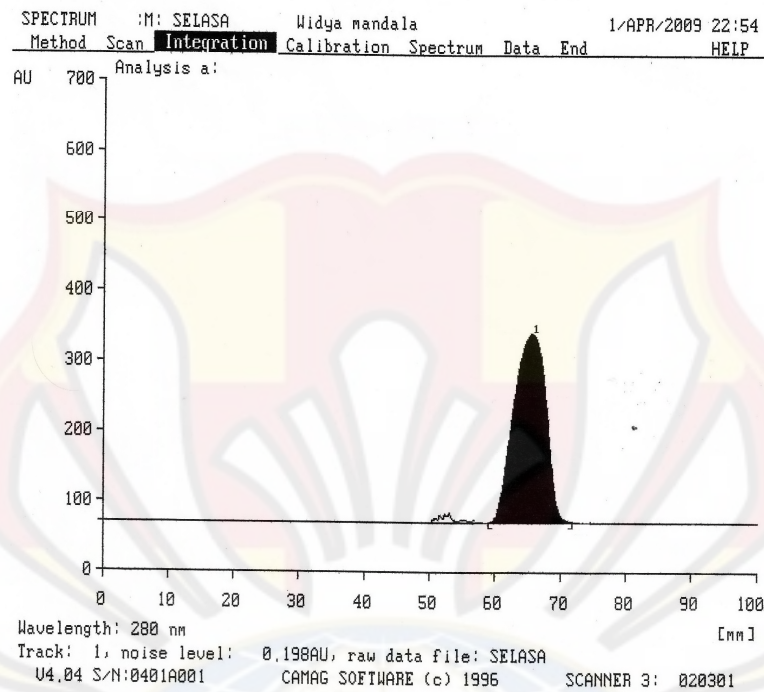
A

Keterangan :

A : Eugenol; B : Minyak Cengkeh; C : Sampel Sediaan Obat Kumur

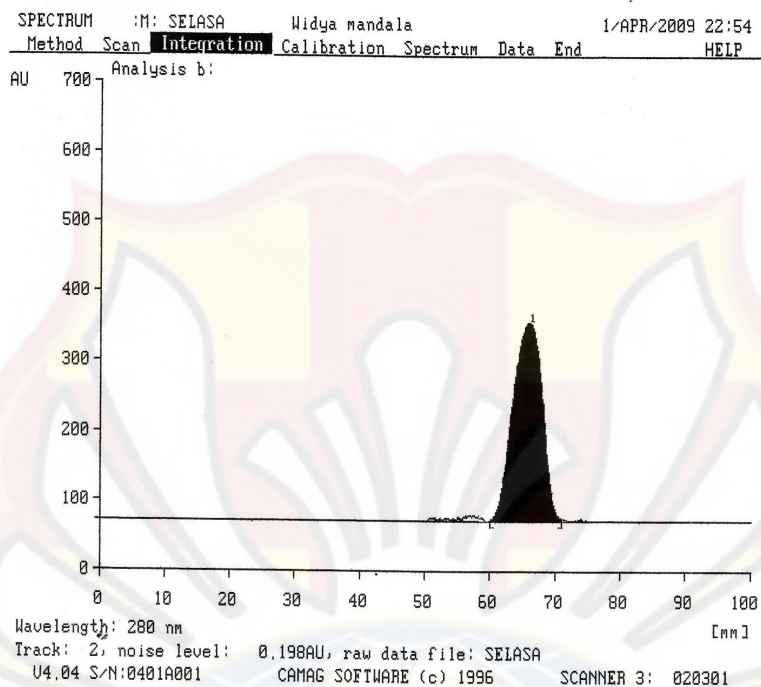
LAMPIRAN B

GAMBAR KROMATOGRAM EUGENOL DIELUASI DENGAN FASE GERAK TOLUENE : ETIL ASETAT (85:15, V/V)



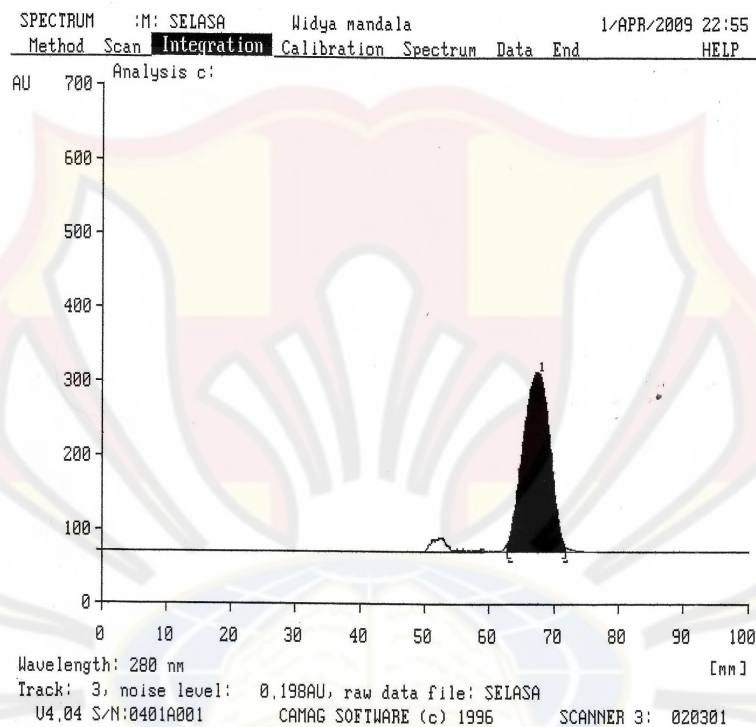
LAMPIRAN C

GAMBAR KROMATOGRAM MINYAK CENGKEH DIELUASI DENGAN FASE GERAK TOLUENE : ETIL ASETAT (85:15, V/V)



LAMPIRAN D

GAMBAR KROMATOGRAM SAMPEL SEDIAAN OBAT KUMUR DIELUASI DENGAN FASE GERAK TOLUENE : ETIL ASETAT (85:15, V/V)



LAMPIRAN E

PERHITUNGAN KADAR EUGENOL YANG TERDAPAT DALAM MINYAK CENGKEH

Minyak cengkeh 60 mg



Dilarutkan dalam 100 ml kloroform



Ditotol 2 μ l

Persamaan garis kurva baku : $y = 3603,2371 x + 807.90$

Penimbangan minyak cengkeh = 0,0612 g

C teoritis = $61200 \mu\text{g}/100000\mu\text{l} \times 2\mu\text{l} = 1,224 \mu\text{g}$

Perhitungan kadar eugenol yang terdapat dalam minyak cengkeh observasi :

Replikasi I :

Luas = 3552,5

C obs = 0,7617

Persen kadar = $0,7617/1,224 \times 100\% = 62,23\%$

Replikasi II :

Luas = 3534,5

C obs = 0,7567

Persen kadar = $0,7567/1,224 \times 100\% = 61,82\%$

Replikasi III :

$$\text{Luas} = 3543,1$$

$$C \text{ obs} = 0,7591$$

$$\text{Persen kadar} = 0,7591/1,224 \times 100\% = 62,02 \%$$

$$\begin{aligned} \text{Persen kadar rata-rata} &= \frac{62,23\% + 61,82\% + 62,02\%}{3} \\ &= 62,02 \% \end{aligned}$$



LAMPIRAN F

PERHITUNGAN KADAR EUGENOL BEBAS YANG TERDAPAT DALAM SEDIAAN OBAT KUMUR MINYAK CENGKEH

Formula A:

Sampel sediaan obat kumur dipipet 1,5 ml
(minyak cengkeh 1 g)



Ekstraksi dengan 25 ml kloroform



Ditotol 2 µl

Persamaan garis kurva baku : $y = 3603,2371 x + 807,90$

Penimbangan minyak cengkeh = 1,0209 g

C teoritis = $\frac{(1020900 \mu\text{g}/100000\mu\text{l} \times 1500\mu\text{l})}{25.000\mu\text{l}} \times 2\mu\text{l} = 1,2251 \mu\text{g}$

Perhitungan kadar eugenol yang terdapat dalam sediaan obat kumur minyak
cengkeh observasi:

Replikasi I :

Luas = 3144,7

C obs = 0,6485

Persen kadar = $0,6485/1,2251 \times 1\% = 0,5293\%$

Replikasi II :

$$\begin{aligned}\text{Luas} &= 3151,1 \\ \text{C obs} &= 0,6503 \\ \text{Persen kadar} &= 0,6503/1,2251 \times 1\% = 0,5308\%\end{aligned}$$

Replikasi III :

$$\begin{aligned}\text{Luas} &= 3137,1 \\ \text{C obs} &= 0,6464 \\ \text{Persen kadar} &= 0,6464/1,2251 \times 1\% = 0,5276 \%\end{aligned}$$

$$\begin{aligned}\text{Persen kadar rata-rata eugenol} &= \frac{0,5293\% + 0,5308\% + 0,5276\%}{3} \\ \text{(formula A)} &= 0,5292 \%\end{aligned}$$

Formula B:

Sampel sediaan obat kumur dipipet 10,0 ml
(minyak cengkeh 1 g)



Ekstraksi dengan 25 ml kloroform



Ditotol 2 µl

Persamaan garis kurva baku : $y = 3603,2371 x + 807,90$

Penimbangan minyak cengkeh = 1,0780 g

$$\text{C teoritis} = \frac{(1078000 \mu\text{g}/100000\mu\text{l} \times 10000\mu\text{l})}{25.000\mu\text{l}} \times 2\mu\text{l} = 8,624 \mu\text{g}$$

Perhitungan kadar eugenol yang terdapat dalam sediaan obat kumur minyak cengkeh observasi:

Replikasi I :

$$\begin{aligned}\text{Luas} &= 5809,19 \\ \text{C obs} &= 1,3880 \\ \text{Persen kadar} &= 1,3880/8,624 \times 1\% = 0,1609\%\end{aligned}$$

Replikasi II :

$$\begin{aligned}\text{Luas} &= 5864,26 \\ \text{C obs} &= 1,4033 \\ \text{Persen kadar} &= 1,4033/8,64 \times 1\% = 0,1627\%\end{aligned}$$

Replikasi III :

$$\begin{aligned}\text{Luas} &= 5723,80 \\ \text{C obs} &= 1,3643 \\ \text{Persen kadar} &= 1,3643/8,64 \times 1\% = 0,1582\%\end{aligned}$$

$$\begin{aligned}\text{Persen kadar rata-rata eugenol} &= \frac{0,1609\% + 0,1627\% + 0,1582\%}{3} \\ \text{(formula B)} & \\ &= 0,1606\%\end{aligned}$$

Formula C :

Sampel sediaan obat kumur dipipet 10,0 ml

(minyak cengkeh 1 g)



Ekstraksi dengan 25 ml kloroform



Ditotal 5 µl

Persamaan garis kurva baku : $y = 3603,2371 x + 807,90$

Penimbangan minyak cengkeh = 1,0209 g

C teoritis = $\frac{(1020900 \mu\text{g}/100000\mu\text{l} \times 10000\mu\text{l})}{25.000\mu\text{l}} \times 5\mu\text{l} = 20,418 \mu\text{g}$

Perhitungan kadar eugenol yang terdapat dalam sediaan obat kumur minyak cengkeh observasi:

Replikasi I :

Luas = 4169,72

C obs = 0,9330

Persen kadar = $0,9330/20,418 \times 1\% = 0,0457\%$

Replikasi II :

Luas = 4214,40

C obs = 0,9454

Persen kadar = $0,9454/20,418 \times 1\% = 0,0463\%$

Replikasi III :

$$\text{Luas} = 4058,93$$

$$\text{C obs} = 0,9022$$

$$\text{Persen kadar} = 0,9022/20,418 \times 1\% = 0,0454\%$$

$$\begin{aligned} \text{Persen kadar rata-rata eugenol} &= \frac{0,0457\% + 0,0463\% + 0,0454\%}{3} \\ \text{(formula C)} &= 0,0458\% \end{aligned}$$



LAMPIRAN G
SURAT KETERANGAN ANALISIS EUGENOL



Certificate of Analysis

<http://certificates.merck.de>

Date of print: 06.11.2008

8.18455.0100 Eugenol for synthesis
Batch S4339055

Batch Values

Assay (GC, area%)
Density (d 20 °C/ 4 °C)
Identity (IR)

99.4 %
1.065
passes test

Date of examination (DD.MM.YYYY): 10.05.2005
Minimum shelf life (DD.MM.YYYY): 31.05.2010

Dr. Wolfgang Bolkart

responsible laboratory manager quality control

This document has been produced electronically and is valid without a signature

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SA-7 Aufb. 17087208-1254647 - 813450000/000000 V. 999

Page 1 of 1

LAMPIRAN I

SERTIFIKAT BAKTERI *STREPTOCOCCUS MUTANS*

DEPARTEMEN PENDIDIKAN DAN KEBUDAYAAN
UNIVERSITAS AIRLANGGA
FAKULTAS KEDOKTERAN GIGI
LABORATORIUM BIOLOGI MULUT/ BAG. MIKROBIOLOGI
Jl. Mayjen Prof. Dr. Moestopo 47, Surabaya Telp : 5030255

Tgl. 10 Maret 2009

Sertifikat bakteri

Hasil uji terhadap bakteri

No	Macam macam uji	Streptokokus mutans
1.	Pengecatan gram	Gram pos ,kokus halus berderet
2.	Penanaman pada Blood Agar	Hemolise sebagian / alpha Streptokokus
3	Biokimia / Gula 2 :	
	- Sorbitol	+
	- Aesculin	+
	- Arginin	-
	- Sukrose	+
	- Mannitol	+

Koordinator Bagian Mikrobiologi
Fakultas Kedokteran Gigi Universitas Airlangga

(Markus Budi Rahardjo, drg., M.Kes)
NIDK 430 937 954

LAMPIRAN J

TABEL UJI R

DEGREES OF FREEDOM (DF)	5 PERCENT	1 PERCENT	DEGREES OF FREEDOM (DF)	5 PERCENT	1 PERCENT
1	.997	1.000	24	.388	.496
2	.950	.990	25	.381	.487
3	.878	.959	26	.374	.478
4	.811	.917	27	.367	.470
5	.754	.874	28	.361	.463
6	.707	.834	29	.355	.456
7	.666	.798	30	.349	.449
8	.632	.765	35	.325	.418
9	.602	.735	40	.304	.393
10	.576	.708	48	.288	.372
11	.553	.684	50	.273	.354
12	.532	.661	60	.250	.325
13	.514	.641	70	.232	.302
14	.497	.623	80	.217	.283
15	.482	.606	90	.205	.267
16	.468	.590	100	.195	.254
17	.456	.575	125	.174	.228
18	.444	.561	150	.159	.208
19	.433	.549	200	.138	.181
20	.423	.537	300	.113	.148
21	.413	.526	400	.098	.128
22	.404	.515	500	.088	.115
23	.396	.505	1000	.062	.081

Dikutip dari: Soedigdo & Soedigdo (1977)

LAMPIRAN K

TABEL F

Denominators for Degrees of Freedom	Numerator Degrees of Freedom								
	1	2	3	4	5	6	7	8	9
1	161.4	199.5	215.7	224.6	230.2	234.0	236.8	238.9	240.5
2	18.81	19.00	19.16	19.25	19.30	19.33	19.35	19.37	19.38
3	10.73	9.55	9.28	9.12	9.01	8.94	8.89	8.85	8.81
4	7.71	6.94	6.59	6.39	6.26	6.16	6.09	6.04	6.00
5	6.61	5.79	5.41	5.19	5.05	4.95	4.88	4.82	4.77
6	5.99	5.14	4.76	4.53	4.39	4.28	4.21	4.15	4.10
7	5.59	4.74	4.35	4.12	3.97	3.87	3.79	3.73	3.68
8	5.32	4.46	4.07	3.84	3.69	3.58	3.50	3.44	3.39
9	5.12	4.26	3.86	3.63	3.48	3.37	3.29	3.23	3.18
10	4.96	4.10	3.71	3.48	3.33	3.22	3.14	3.07	3.02
11	4.84	3.98	3.59	3.36	3.20	3.09	3.01	2.95	2.90
12	4.75	3.89	3.49	3.26	3.11	3.00	2.91	2.85	2.80
13	4.67	3.81	3.41	3.18	3.03	2.92	2.83	2.77	2.71
14	4.60	3.74	3.34	3.11	2.96	2.85	2.76	2.70	2.65
15	4.54	3.68	3.29	3.06	2.90	2.79	2.71	2.64	2.59
16	4.49	3.63	3.24	3.01	2.85	2.74	2.66	2.59	2.54
17	4.45	3.59	3.20	2.96	2.81	2.70	2.61	2.55	2.49
18	4.41	3.55	3.16	2.93	2.77	2.66	2.58	2.51	2.46
19	4.38	3.52	3.13	2.90	2.74	2.63	2.54	2.48	2.42
20	4.35	3.49	3.10	2.87	2.71	2.60	2.51	2.45	2.39
21	4.32	3.47	3.07	2.84	2.68	2.57	2.49	2.42	2.37
22	4.30	3.44	3.05	2.82	2.66	2.55	2.46	2.40	2.34
23	4.28	3.42	3.03	2.80	2.64	2.53	2.44	2.37	2.32
24	4.26	3.40	3.01	2.78	2.62	2.51	2.42	2.36	2.30
25	4.24	3.39	2.99	2.76	2.60	2.49	2.40	2.34	2.28
26	4.23	3.37	2.98	2.74	2.59	2.47	2.39	2.32	2.27
27	4.21	3.35	2.96	2.73	2.57	2.46	2.37	2.31	2.25
28	4.20	3.34	2.95	2.71	2.56	2.45	2.36	2.29	2.24
29	4.18	3.33	2.93	2.70	2.55	2.43	2.35	2.28	2.22
30	4.17	3.32	2.92	2.69	2.53	2.42	2.33	2.27	2.21
40	4.08	3.23	2.84	2.61	2.45	2.34	2.25	2.18	2.12
60	4.00	3.15	2.76	2.53	2.37	2.25	2.17	2.10	2.04
120	3.92	3.07	2.68	2.45	2.29	2.17	2.09	2.02	1.96
∞	3.84	3.00	2.60	2.37	2.21	2.10	2.01	1.94	1.88

(Sumber: John E., 1992)

Dikutip dari: Gennaro, A.R. (1970)