

## LAMPIRAN A

### SERTIFIKAT BAHAN TANAMAN DAUN CENGKEH



LEMBAGA ILMU PENGETAHUAN INDONESIA  
(Indonesian Institute of Sciences)  
UPT BALAI KONSERVASI TUMBUHAN KEBUN RAYA PURWODADI  
(Purwodadi Botanic Garden)  
Jl. Raya Surabaya - Malang Km. 65, Purwodadi - Pasuruan 67163  
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#### SURAT IDENTIFIKASI No. :901.c/IPH.3.04/HM/XI/2008

Kepala UPT Balai Konservasi Tumbuhan Kebun Raya Purwodadi dengan ini menerangkan bahwa material tanaman (daun) yang di bawa oleh :

SELVI WIDYA ASTUTI, NRP : 2443005102

Mahasiswa Fakultas Farmasi, Universitas Katholik Widya Mandala di Surabaya datang di UPT Balai Konservasi Tumbuhan Kebun Raya Purwodadi pada tanggal 12 November 2008, berdasarkan buku Flora of Java karangan C.A. Backer. Volume I (1963) halaman 342, nama ilmiahnya adalah :

Marga : *Syzygium*  
Jenis : *Syzygium aromaticum* (L.) Merr. & Perry.

Adapun menurut buku *The Standard Cyclopedia of Horticulture* karangan L.H. Bailey jilid I (1953) halaman 3, klasifikasinya adalah sebagai berikut :

Divisio : *Spermatophyta*  
Sub Divisio : *Angiospermae*  
Kelas : *Dicotyledoneae*  
Ordo/ Bangsa : *Myrtiflorae*  
Family/ Suku : *Myrtaceae*

Demikian Surat Keterangan ini dibuat untuk dapat dipergunakan sebagaimana mestinya

Purwodadi, 17 November 2008

An. Kepala



UPT. Balai Konservasi Tumbuhan  
Kebun Raya Purwodadi  
Koord. Jasa dan Informasi



WARDAYA  
NIP.320003343

## LAMPIRAN B

### SERTIFIKAT UJI BIOKIMIA TERHADAP *STAPHYLOCOCCUS AUREUS*


 **DEPARTEMEN KESEHATAN REPUBLIK INDONESIA**  
**BALAI BESAR LABORATORIUM KESEHATAN SURABAYA**  
Jalan Karangmenjangan No. 18 Surabaya 60286  
Telp. Tata Usaha : 031-5021451, Kabag. TU / Fax.: 031-5021452 pes. 104, 031-5020388  
E-mail : [blksub@idola.net.id](mailto:blksub@idola.net.id) 

6 Februari 2009

- *Staphylococcus aureus* ATCC ( 25923 )

No	Uji Biokimia	<i>Staphylococcus aureus</i>
1.	Katalase	+
2.	Hemolise	B
3.	Coagulase	+
4.	DNase	+
5.	Pengecatan gram	Gram positif coccus bergerombol

Balai Besar Laboratorium Kesehatan  
Surabaya  
Kepala Seksi Laboratorium Klinik

  
**dr. Eveline Irawan**  
NIP.140 206 418

## LAMPIRAN C

### SERTIFIKAT UJI BIOKIMIA TERHADAP *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. 8 Januari 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)  
NIP. 430 937 954

## LAMPIRAN D

**TABEL HASIL DESTILASI STAHL SERBUK DAUN CENGKEH  
(CARYOPHYLLI FOLIUM)**

Replikasi	Berat Daun Cengkeh	Volume Air sisa Destilasi (ml)		Volume Minyak Atsiri Daun Cengkeh (ml)	Kadar Minyak Atsiri Daun Cengkeh (%b/v)
		Labu	Buret		
1	50 g	162	172	1,8	3,6
2	50 g	180	135	2	4,0
3	50 g	90	155	2	4,0
4	50 g	170	130	1,9	3,8
$\bar{x} \pm SD = 1,93 \pm 0,0957$					

Rumus yang digunakan yaitu :

$$\% \text{ Kadar minyak atsiri} = \frac{\text{Volume minyak}}{\text{Berat daun}} \times 100\%$$

LAMPIRAN E

TABEL HASIL UJI HSD DARI DATA DHP MINYAK ATSIRI, AIR SISA DESTILASI LABU SEMUA PERLAKUAN DAN EUGENOL TERHADAP *STAPHYLOCOCCUS AUREUS*

Multiple Comparisons

Dependent Variable : DHP *Staphylococcus aureus*

Tukey HSD

(I) Formula	(J) Formula	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
<b>MA10%</b>	MA 20%	-2.2500	1.8443	.941	-8.7123	4.2123
	MA 30%	-4.0167	1.8443	.457	-10.4790	2.4456
	Asdl TP	-3.7500	1.8443	.542	-10.2123	2.7123
	Asdl WB	-5.2833	1.8443	.163	-11.7456	1.1790
	Asdl Fd 10%	-7.0167*	1.8443	.028	-13.4790	-5.544
	Asdl Fd 20%	-9.0833*	1.8443	.003	-15.5456	-2.6210
	Asdl Fd 30%	-10.3167*	1.8443	.001	-16.7790	-3.8544
	KP	.8333	1.8443	1.000	-5.6290	7.2956
<b>MA 20%</b>	MA10%	2.2500	1.8443	.941	-4.2123	8.7123
	MA 30%	-1.7667	1.8443	.985	-8.2290	4.6956
	Asdl TP	-1.5000	1.8443	.995	-7.9623	4.9623
	Asdl WB	-3.0333	1.8443	.770	-9.4956	3.4290
	Asdl Fd 10%	-4.7667	1.8443	.258	-11.2290	1.6956
	Asdl Fd 20%	-6.8333*	1.8443	.034	-13.2956	-.3710
	Asdl Fd 30%	-8.0667*	1.8443	.009	-14.5290	-1.6044
	KP	3.0833	1.8443	.755	-3.3790	9.5456
<b>MA 30%</b>	MA10%	4.0167	1.8443	.457	-2.4456	10.4790
	MA 20%	1.7667	1.8443	.985	-4.6956	8.2290
	Asdl TP	.2667	1.8443	1.000	-6.1956	6.7290
	Asdl WB	-1.2667	1.8443	.998	-7.7290	5.1956
	Asdl Fd 10%	-3.0000	1.8443	.779	-9.4623	3.4623
	Asdl Fd 20%	-5.0667	1.8443	.199	-11.5290	1.3956
	Asdl Fd 30%	-6.3000	1.8443	.059	-12.7623	.1623
	KP	4.8500	1.8443	.241	-1.6123	11.3123
<b>Asdl TP</b>	MA10%	3.7500	1.8443	.542	-2.7123	10.2123
	MA 20%	1.5000	1.8443	.995	-4.9623	7.9623
	MA 30%	-.2667	1.8443	1.000	-6.7290	6.1956
	Asdl WB	-1.5333	1.8443	.994	-7.9956	4.9290
	Asdl Fd 10%	-3.2667	1.8443	.699	-9.7290	3.1956
	Asdl Fd 20%	-5.3333	1.8443	.156	-11.7956	1.1290
	Asdl Fd 30%	-6.5667*	1.8443	.045	-13.0290	-.1044
	KP	4.5833	1.8443	.300	-1.8790	11.0456



<b>Asdl</b>	MA10%	5.2833	1.8443	.163	-1.1790	11.7456
<b>WB</b>	MA 20%	3.0333	1.8443	.770	-3.4290	9.4956
	MA 30%	1.2667	1.8443	.998	-5.1956	7.7290
	Asdl TP	1.5333	1.8443	.994	-4.9290	7.9956
	Asdl Fd 10%	-1.7333	1.8443	.987	-8.1956	4.7290
	Asdl Fd 20%	-3.8000	1.8443	.526	-10.2623	2.6623
	Asdl Fd 30%	-5.0333	1.8443	.205	-11.4956	1.4290
	KP	6.1167	1.8443	.072	-.3456	12.5790
<b>Asdl Fd</b>	MA10%	7.0167*	1.8443	.028	.5544	13.4790
<b>10%</b>	MA 20%	4.7667	1.8443	.258	-1.6956	11.2290
	MA 30%	3.0000	1.8443	.779	-3.4623	9.4623
	Asdl TP	3.2667	1.8443	.699	-3.1956	9.7290
	Asdl WB	1.7333	1.8443	.987	-4.7290	8.1956
	Asdl Fd 20%	-2.0667	1.8443	.963	-8.5290	4.3956
	Asdl Fd 30%	-3.3000	1.8443	.688	-9.7623	3.1623
	KP	7.8500*	1.8443	.011	1.3877	14.3123
<b>Asdl Fd</b>	MA10%	9.0833*	1.8443	.003	2.6210	15.5456
<b>20%</b>	MA 20%	6.8333*	1.8443	.034	.3710	13.2956
	MA 30%	5.0667	1.8443	.199	-1.3956	11.5290
	Asdl TP	5.3333	1.8443	.156	-1.1290	11.7956
	Asdl WB	3.8000	1.8443	.526	-2.6623	10.2623
	Asdl Fd 10%	2.0667	1.8443	.963	-4.3956	8.5290
	Asdl Fd 30%	-1.2333	1.8443	.999	-7.6956	5.2290
	KP	9.9167*	1.8443	.001	3.4544	16.370
<b>Asdl Fd</b>	MA10%	10.3167*	1.8443	.001	3.8544	16.7790
<b>30%</b>	MA 20%	8.0667*	1.8443	.009	1.6044	14.5290
	MA 30%	6.3000	1.8443	.059	-.1623	12.7623
	Asdl TP	6.5667*	1.8443	.045	.1044	13.0290
	Asdl WB	5.0333	1.8443	.205	-1.4290	11.4956
	Asdl Fd 10%	3.3000	1.8443	.688	-3.1623	9.7623
	Asdl Fd 20%	1.2333	1.8443	.999	-5.2290	7.6956
	KP	11.1500*	1.8443	.000	4.6877	17.6123
<b>KP</b>	MA10%	-.8333	1.8443	1.000	-7.2956	5.6290
	MA 20%	-3.0833	1.8443	.755	-9.5456	3.3790
	MA 30%	-4.8500	1.8443	.241	-11.3123	1.6123
	Asdl TP	-4.5833	1.8443	.300	-11.0456	1.8790
	Asdl WB	-6.1167	1.8443	.072	-12.5790	.3456
	Asdl Fd 10%	-7.8500*	1.8443	.011	-14.3123	-1.3877
	Asdl Fd 20%	-9.9167*	1.8443	.001	-16.3790	-3.4544
	Asdl Fd 30%	-11.1500*	1.8443	.000	-17.6123	-4.6877

\*The mean difference is significant at the .05 level

LAMPIRAN F

**TABEL HASIL UJI HSD DARI DATA DHP MINYAK ATSIRI, AIR SISA DESTILASI LABU SEMUA PERLAKUAN DAN EUGENOL TERHADAP *STREPTOCOCCUS MUTANS***

Multiple Comparisons

Dependent Variable : DHP *Streptococcus mutans*

Tukey HSD

(I) Formula	(J) Formula	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
<b>MA10%</b>	MA 20%	-1.7500	1.0938	.793	-5.5826	2.0826
	MA 30%	-3.9667*	1.0938	.039	-7.7993	-.1341
	Asdl TP	1.7667	1.0938	.785	-2.0659	5.5993
	Asdl WB	.8000	1.0938	.997	-3.0326	4.6326
	Asdl Fd 10%	-.3000	1.0938	1.000	-4.1326	3.5326
	Asdl Fd 20%	-1.7333	1.0938	.801	-5.5659	2.0993
	Asdl Fd 30%	-2.6333	1.0938	.336	-6.4659	1.1993
	KP	2.2500	1.0938	.528	-1.5826	6.0826
<b>MA 20%</b>	MA10%	1.7500	1.0938	.793	-2.0826	5.5826
	MA 30%	-2.2167	1.0938	.546	-6.0493	1.6159
	Asdl TP	3.5167	1.0938	.087	-.3159	7.3493
	Asdl WB	2.5500	1.0938	.374	-1.2826	6.3826
	Asdl Fd 10%	1.4500	1.0938	.911	-2.3836	5.2826
	Asdl Fd 20%	1.667E-02	1.0938	1.000	-3.8159	3.8493
	Asdl Fd 30%	-.8833	1.0938	.995	-4.7159	2.9493
	KP	4.0000*	1.0938	.037	.1674	7.8326
<b>MA 30%</b>	MA10%	3.9667*	1.0938	.039	.1341	7.7993
	MA 20%	2.2167	1.0938	.546	-1.6159	6.0493
	Asdl TP	5.7333*	1.0938	.001	-1.9007	9.5659
	Asdl WB	4.7667*	1.0938	.009	-.9341	8.5993
	Asdl Fd 10%	3.6667	1.0938	.067	-.1659	7.4993
	Asdl Fd 20%	2.2333	1.0938	.537	-1.5993	6.0659
	Asdl Fd 30%	1.3333	1.0938	.942	-2.4993	5.1659
	KP	6.2167*	1.0938	.001	2.3841	10.0493
<b>Asdl TP</b>	MA10%	-1.7667	1.0938	.785	-5.5993	2.0659
	MA 20%	-3.5167	1.0938	.087	-7.3493	.3159
	MA 30%	-5.7333*	1.0938	.001	-9.5659	-1.9007
	Asdl WB	-.9667	1.0938	.991	-4.7993	2.8659
	Asdl Fd 10%	-2.0667	1.0938	.628	-5.8993	1.7659
	Asdl Fd 20%	-3.5000	1.0938	.089	-7.3326	.3326
	Asdl Fd 30%	-4.4000*	1.0938	.018	-8.2326	-.5674
	KP	.4833	1.0938	1.000	-3.3493	4.3159

<b>Asdl</b>	MA10%	-.8000	1.0938	.997	-4.6326	3.0326
<b>WB</b>	MA 20%	-2.5500	1.0938	.374	-6.3826	1.2826
	MA 30%	-4.7667*	1.0938	.009	-8.5993	-.9341
	Asdl TP	.9667	1.0938	.991	-2.8659	4.7993
	Asdl Fd 10%	-1.1000	1.0938	.980	-4.9326	2.7326
	Asdl Fd 20%	-2.5333	1.0938	.382	-6.3659	1.2993
	Asdl Fd 30%	-3.4333	1.0938	.100	-7.2659	.3993
	KP	1.4500	1.0938	.911	-2.3826	5.2826
<b>Asdl Fd</b>	MA10%	.3000	1.0938	1.000	-3.5326	4.1326
<b>10%</b>	MA 20%	-1.4500	1.0938	.911	-5.2826	2.3826
	MA 30%	-3.6667	1.0938	.067	-7.4993	.1659
	Asdl TP	2.0667	1.0938	.628	-1.7659	5.8993
	Asdl WB	1.1000	1.0938	.980	-2.7326	4.9326
	Asdl Fd 20%	-1.4333	1.0938	.915	-5.2659	2.3993
	Asdl Fd 30%	-2.3333	1.0938	.483	-6.1659	1.4993
	KP	2.5500	1.0938	.374	-1.2826	6.3826
<b>Asdl Fd</b>	MA10%	1.7333	1.0938	.801	-2.0993	5.5659
<b>20%</b>	MA 20%	-1.6667E-02	1.0938	1.000	-3.8493	3.8159
	MA 30%	-2.2333	1.0938	.537	-6.0659	1.5993
	Asdl TP	3.5000	1.0938	.089	-.3326	7.3326
	Asdl WB	2.5333	1.0938	.382	-1.2993	6.3659
	Asdl Fd 10%	1.4333	1.0938	.915	-2.3993	5.2659
	Asdl Fd 30%	-.9000	1.0938	.994	-4.8326	2.9326
	KP	3.9833*	1.0938	.038	.1507	7.8159
<b>Asdl Fd</b>	MA10%	2.6333	1.0938	.336	-1.1993	6.4659
<b>30%</b>	MA 20%	.8833	1.0938	.995	-2.9493	4.7159
	MA 30%	-1.3333	1.0938	.942	-5.1659	2.4993
	Asdl TP	4.4000*	1.0938	.018	.5674	8.2326
	Asdl WB	3.4333	1.0938	.100	-.3993	7.2659
	Asdl Fd 10%	2.3333	1.0938	.483	-1.4993	6.1659
	Asdl Fd 20%	.9000	1.0938	.994	-2.9326	4.7326
	KP	4.8833*	1.0938	.007	1.0507	8.7159
<b>KP</b>	MA10%	-2.2500	1.0938	.528	-6.0826	1.5826
	MA 20%	-4.0000*	1.0938	.037	-7.8326	-.1674
	MA 30%	-6.2167*	1.0938	.001	-10.0493	-2.3841
	Asdl TP	-.4833	1.0938	1.000	-4.3159	3.3493
	Asdl WB	-1.4500	1.0938	.911	-5.2826	2.3826
	Asdl Fd 10%	-2.5500	1.0938	.374	-6.3826	1.2826
	Asdl Fd 20%	-3.9833*	1.0938	.038	-7.8159	-.1507
	Asdl Fd 30%	-4.8833*	1.0938	.007	-8.7159	-1.0507

\*The mean difference is significant at the .05 level



Keterangan :

MA 10% : Minyak atsiri 10%  
MA 20% : Minyak atsiri 20%  
MA 30% : Minyak atsiri 30%  
Asdl TP : Air sisa destilasi labu tanpa pengolahan  
Asdl WB : Air sisa destilasi labu yang dipekatkan dengan WB  
Asdl Fd 10% : Air sisa destilasi labu *freeze dried* 10%  
Asdl Fd 20% : Air sisa destilasi labu *freeze dried* 20%  
Asdl Fd 30% : Air sisa destilasi labu *freeze dried* 30%  
KP : Pembanding eugenol 2%

Pada keterangan angka yang terdapat tanda bintang (\*) dibelakangnya (pada kolom ketiga), ini menunjukkan bahwa antara larutan uji yang satu dengan yang lainnya terdapat perbedaan yang bermakna, yaitu antara keterangan larutan uji kolom pertama ((I) Formula) dan keterangan larutan uji kolom kedua ((J) Formula).

