

LAMPIRAN A PERHITUNGAN BERBAGAI MACAM KONSENTRASI

1. Larutan asam asetilsalisilat, Asam asetilsalisilat 100 mg dilarutkan kedalam air+DMSO dalam 100 ml

Konsentrasi yang didapat :

$$= \frac{100\text{mg} \times 1000}{100}$$

$$= 1000 \text{ ppm}$$

Larutan asam asetilsalisilat yang akan diuji, untuk konsentrasi :

$$62,5 \text{ ppm} = \frac{x}{10} \times 1000$$

$$x = 0,625 \text{ ml}$$

Pipet 0,625 ml dari larutan asam asetilsalisilat dan tambahkan air sebanyak 9,375 ml

$$125 \text{ ppm} = \frac{x}{10} \times 1000$$

$$x = 1,25 \text{ ml}$$

Pipet 1,25 ml dari larutan asam asetilsalisilat dan tambahkan air sebanyak 8,75 ml

$$250 \text{ ppm} = \frac{x}{10} \times 1000$$

$$x = 2,5 \text{ ml}$$

Pipet 2,5 ml larutan asam asetilsalisilat dan tambahkan air sebanyak 7,5 ml

$$500 \text{ ppm} = \frac{x}{10} \times 1000$$

$$x = 5 \text{ ml}$$

Pipet 5 ml larutan asam asetilsalisilat dan tambahkan air sebanyak 5 ml

$$1000 \text{ ppm} = \frac{x}{10} \times 1000$$

$$x = 10 \text{ ml}$$

Pipet 10 ml larutan asam asetilsalisilat

2. Larutan senyawa asam O-(4-metoksibenzoil)salisilat, asam O-(4-metoksibenzoil)salisilat, 100 mg dilarutkan kedalam air+DMSO dalam 100 ml.

Konsentrasi yang didapat :

$$= \frac{100\text{mg} \times 1000}{100}$$

$$= 1000 \text{ ppm}$$

Larutan yang akan diuji, untuk konsentrasi :

62,5 ppm = Pipet 0,625 ml dari larutan asam O-(4-metoksibenzoil)salisilat, dan ditambahkan air sebanyak 9,375 ml

125 ppm = Pipet 1,25 ml dari larutan O-(4-metoksibenzoil)salisilat, dan ditambahkan air sebanyak 8,75 ml

250 ppm = Pipet 2,5 ml larutan asam O-(4-metoksibenzoil)salisilat, dan ditambahkan air sebanyak 7,5 ml

500 ppm = Pipet 5 ml larutan asam O-(4-metoksibenzoil)salisilat, dan ditambahkan air sebanyak 5 ml

1000 ppm = Pipet 10 ml larutan asam O-(4-metoksibenzoil)salisilat,

3. Larutan senyawa asam O-(3-klorobenzoil)salisilat, asam O-(3-klorobenzoil)salisilat 100 mg dilarutkan kedalam air+DMSO dalam 100 ml.

Konsentrasi yang didapat :

$$= \frac{100\text{mg} \times 1000}{100}$$

$$= 1000 \text{ ppm}$$

Larutan yang akan diuji, untuk konsentrasi :

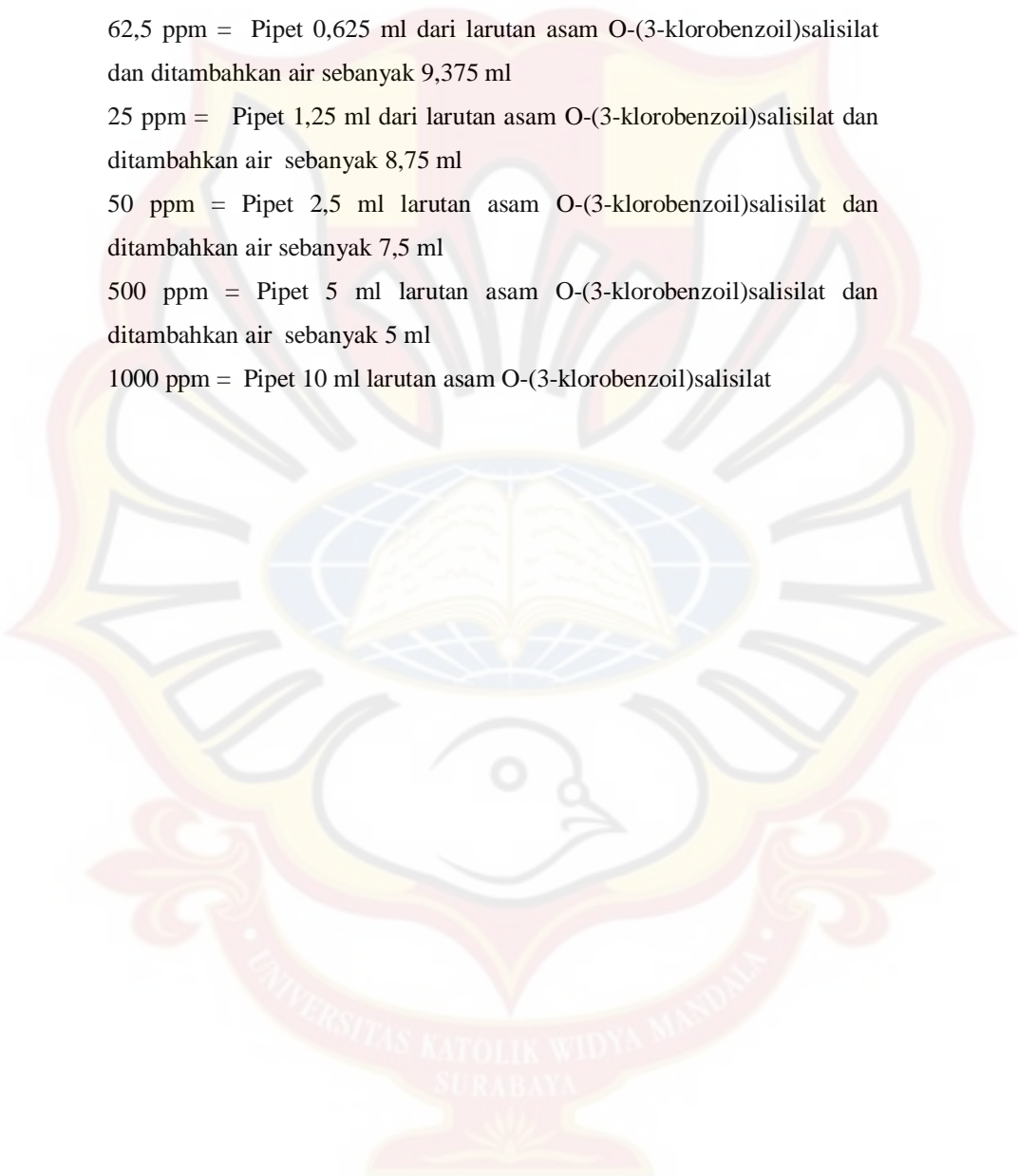
62,5 ppm = Pipet 0,625 ml dari larutan asam O-(3-klorobenzoil)salisilat dan ditambahkan air sebanyak 9,375 ml

25 ppm = Pipet 1,25 ml dari larutan asam O-(3-klorobenzoil)salisilat dan ditambahkan air sebanyak 8,75 ml

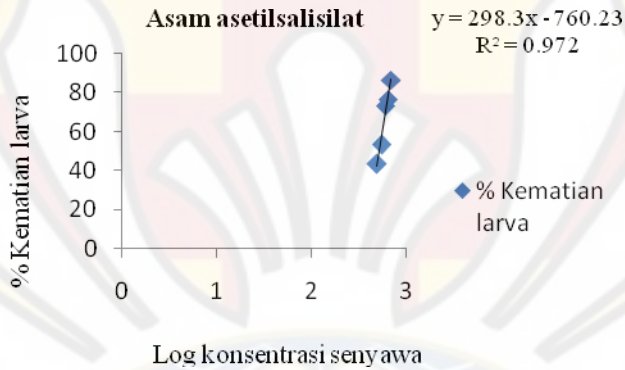
50 ppm = Pipet 2,5 ml larutan asam O-(3-klorobenzoil)salisilat dan ditambahkan air sebanyak 7,5 ml

500 ppm = Pipet 5 ml larutan asam O-(3-klorobenzoil)salisilat dan ditambahkan air sebanyak 5 ml

1000 ppm = Pipet 10 ml larutan asam O-(3-klorobenzoil)salisilat



LAMPIRAN B

PERHITUNGAN *Lethal Concentration* ₅₀

Regresi linear :

$$a = - 760,23$$

$$b = 298,3$$

$$r = 0,9859$$

Persamaan regresi : $Y = a + bx$

$$Y = - 760,23 + 298,3x$$

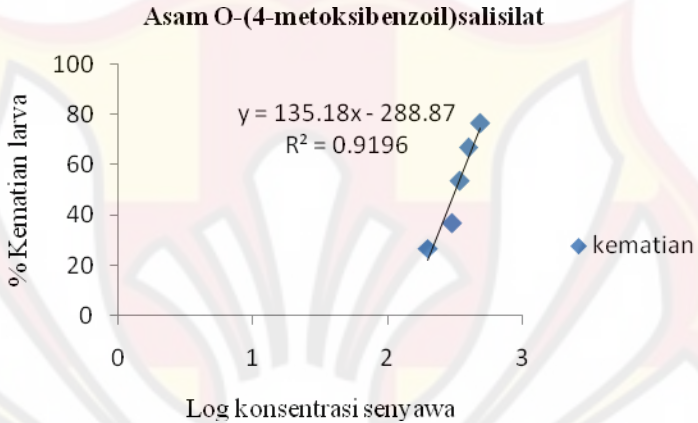
Menghitung LC_{50} : $Y = a + bx$

$$50 = - 760,23 + 298,3x$$

$$x = 2,71 \text{ ppm}$$

- ❖ Jadi konsentrasi yang dapat mematikan 50% larva nyamuk *Aedes aegypti* Linn. adalah konsentrasi 520 ppm.

♣ Asam O-(4-metoksibenzoil)salisilat



Diperoleh hasil regresi :

$$r = 0,9589$$

$$a = -288,87$$

$$b = 135,18$$

Persamaan regresi : $y = 288,87 - 135,18x$

Cara menghitung LC_{50} :

$$y = a + bx$$

$$50 = 288,87 - 135,18x$$

$$x = \log 2,5$$

$$= 322 \text{ ppm}$$

- ❖ Jadi konsentrasi yang dapat mematikan 50% larva nyamuk *Aedes aegypti* Linn. adalah konsentrasi 322 ppm.

LAMPIRAN C

TABEL KORELASI (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

LAMPIRAN D
ANALISIS PROBIT

♣ Asam asetilsalisilat

Parameter Estimates

Parameter	Estimate	Std. Error	Z	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
KONSENTRASI	8.535	3.672	2.325	.020	1.339	15.732
Intercept	-23.188	10.154	-2.284	.022	-33.342	-13.034

PROBIT^a

a. PROBIT model: $\text{PROBIT}(p) = \text{Intercept} + \text{BX}$

Cell Counts and Residuals

	Number	Log Konsentrasi	Number of Subjects	Observed Responses	Expected Responses	Residual	Probability
PROBIT	1	2.690	10	4	4.097	.233	.410
	2	2.740	10	5	5.787	-.457	.579
	3	2.780	10	7	7.054	.276	.705
	4	2.810	10	8	7.870	-.200	.787
	5	2.840	10	9	8.536	.134	.854

Confidence Limits

95% Confidence Limits for Log Konsentrasi				
	Probability	Estimate	Lower Bound	Upper Bound
PROBIT	.010	2.444	.716	2.594
	.020	2.476	.920	2.612
	.030	2.496	1.048	2.623
	.040	2.512	1.145	2.632
	.050	2.524	1.224	2.639
	.060	2.535	1.291	2.645
	.070	2.544	1.350	2.650
	.080	2.552	1.403	2.655
	.090	2.560	1.451	2.659
	.100	2.567	1.495	2.663
	.150	2.595	1.677	2.680
	.200	2.618	1.821	2.693
	.250	2.638	1.945	2.705
	.300	2.655	2.056	2.716
	.350	2.672	2.158	2.726
	.400	2.687	2.254	2.737
	.450	2.702	2.347	2.748
	.500	2.717	2.436	2.761
	.550	2.731	2.522	2.776
	.600	2.746	2.603	2.799
	.650	2.762	2.673	2.836
	.700	2.778	2.721	2.901
	.750	2.796	2.750	2.993
	.800	2.815	2.771	3.108
	.850	2.838	2.790	3.247
	.900	2.867	2.809	3.426
	.910	2.874	2.814	3.470
	.920	2.881	2.818	3.517
	.930	2.890	2.824	3.569
	.940	2.899	2.829	3.628
	.950	2.909	2.836	3.694
	.960	2.922	2.843	3.773
	.970	2.937	2.852	3.869
	.980	2.957	2.863	3.998
	.990	2.989	2.882	4.201

Report

Log Konsentrasi	Mean	N	Std. Deviation
2.69	4.3333	3	.57735
2.74	5.3333	3	.57735
2.78	7.3333	3	.57735
2.81	7.6667	3	.57735
2.84	8.6667	3	.57735
Total	6.6667	15	1.71825

♣ Senyawa Asam O-(4-metoksibenzoil)salisilat

Parameter Estimates

Parameter	Estimate	Std. Error	Z	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
PROBIT KONSENTRASI	3.577	1.443	2.478	.013	.748	6.407
^a Intercept	-8.979	3.650	-2.460	.014	-12.628	-5.329

a. PROBIT model: $\text{PROBIT}(p) = \text{Intercept} + \text{BX}$

Cell Counts and Residuals

	Number	Log Konsentrasi	Number of Subjects	Observed Responses	Expected Responses	Residual	Probability
PROBI T	1	2.300	10	3	2.265	.405	.226
	2	2.480	10	4	4.576	-.906	.458
	3	2.540	10	5	5.430	-.100	.543
	4	2.600	10	7	6.265	.405	.627
	5	2.700	10	8	7.519	.151	.752



Confidence Limits

95% Confidence Limits for Log Konsentrasi				
	Probability	Estimate	Lower Bound	Upper Bound
PROBIT	.010	1.860	-.667	2.163
	.020	1.936	-.304	2.207
	.030	1.984	-.074	2.235
	.040	2.020	.099	2.256
	.050	2.050	.240	2.273
	.060	2.075	.359	2.288
	.070	2.097	.464	2.301
	.080	2.117	.558	2.313
	.090	2.135	.643	2.324
	.100	2.152	.722	2.334
	.150	2.220	1.046	2.376
	.200	2.275	1.302	2.410
	.250	2.321	1.520	2.442
	.300	2.363	1.713	2.473
	.350	2.402	1.889	2.505
	.400	2.439	2.049	2.541
	.450	2.475	2.194	2.587
	.500	2.510	2.316	2.653
	.550	2.545	2.407	2.748
	.600	2.581	2.471	2.876
.650	2.618	2.516	3.027	
.700	2.656	2.553	3.198	
.750	2.698	2.586	3.389	
.800	2.745	2.619	3.605	
.850	2.800	2.655	3.860	
.900	2.868	2.698	4.183	
.910	2.885	2.708	4.261	
.920	2.903	2.719	4.346	
.930	2.922	2.731	4.440	
.940	2.944	2.744	4.545	
.950	2.970	2.759	4.664	
.960	2.999	2.776	4.805	
.970	3.036	2.798	4.978	
.980	3.084	2.826	5.208	
.990	3.160	2.870	5.571	

Report

Log Konsentrasi	Mean	N	Std. Deviation
2.30	2.6667	3	.57735
2.48	3.6667	3	.57735
2.54	5.3333	3	.57735
2.60	6.6667	3	.57735
2.69	7.6667	3	.57735
Total	5.2000	15	1.97122

♠ Senyawa Asam O-(3-klorobenzoil)salisilat

Parameter Estimates

Parameter	Estimate	Std. Error	Z	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
PROBIT KONSENTRASI	5.368	2.025	2.651	.008	1.399	9.337
^a Intercept	-15.725	5.753	-2.733	.006	-21.478	-9.972

a. PROBIT model: $\text{PROBIT}(p) = \text{Intercept} + \text{BX}$

Cell Counts and Residuals

		Log	Number	Observed	Expected	Residual	Probability
	Number	Konsentrasi	of	Responses	Responses		
			Subjects				
PROBIT	1	2.700	10	1	1.091	-.421	.109
	2	2.740	10	2	1.546	.124	.155
	3	2.780	10	3	2.113	.557	.211
	4	2.930	10	5	5.013	-.343	.501
	5	2.940	10	5	5.227	.103	.523



Confidence Limits

	Probability	95% Confidence Limits for Log Konsentrasi		
		Estimate	Lower Bound	Upper Bound
PROBIT	.010	2.496	1.512	2.652
	.020	2.547	1.705	2.683
	.030	2.579	1.827	2.703
	.040	2.603	1.919	2.718
	.050	2.623	1.993	2.731
	.060	2.640	2.056	2.742
	.070	2.654	2.111	2.752
	.080	2.668	2.161	2.760
	.090	2.680	2.205	2.769
	.100	2.691	2.246	2.776
	.150	2.736	2.413	2.811
	.200	2.773	2.539	2.845
	.250	2.804	2.639	2.883
	.300	2.832	2.715	2.930
	.350	2.858	2.769	2.991
	.400	2.882	2.806	3.062
	.450	2.906	2.834	3.139
	.500	2.929	2.856	3.219
	.550	2.953	2.876	3.303
	.600	2.977	2.894	3.390
	.650	3.001	2.912	3.481
	.700	3.027	2.929	3.578
	.750	3.055	2.947	3.683
	.800	3.086	2.967	3.800
	.850	3.122	2.990	3.938
	.900	3.168	3.018	4.111
	.910	3.179	3.025	4.153
	.920	3.191	3.032	4.199
	.930	3.204	3.040	4.249
	.940	3.219	3.048	4.305
	.950	3.236	3.059	4.369
	.960	3.256	3.070	4.444
	.970	3.280	3.085	4.537
	.980	3.312	3.104	4.660
	.990	3.363	3.134	4.854

Report

Log Konsentrasi	Mean	N	Std. Deviation
2.70	.6667	3	.57735
2.74	1.6667	3	.57735
2.78	2.6667	3	.57735
2.93	4.3333	3	.57735
2.94	5.3333	3	.57735
Total	2.9333	15	1.83095

