



Table 1 . MITA data set (60 化学物質)

Chemicals	IL-2		IFN- $\gamma$		IL-1 $\beta$		IL-8	
	Judge	LOEL	Judge	LOEL	Judge	LOEL	Judge	LOEL
2,4-Diaminotoluene	N		A	62.50	N		S	0.98
2-Aminoanthracene	S	0.81	S	5.86	S	2.03	N	
2-Mercaptobenzothiazole	N		N		N		S	125.00
Acetaminophen	A	33.33	A	33.33	A	166.67	A	100.00
Actinomycin D	S	0.00	S	0.01	N		S	0.00
Aluminum chloride	S	3.91	S	62.50	N		N	
Amphoterycin B	S	0.78	S	2.08	A	3.13	A	7.82
Benzethonium chloride	S	1.95	S	1.95	S	3.91	N	
Chlorpromazine	S	3.91	S	3.91	S	7.81	S	7.81
Cisplatin	S	0.24	S	1.22	N		N	
Cobalt chloride	S	3.91	S	9.12	S	3.91	S	125.00
Cyclophosphamide	N		A	168.00	N		N	
Cyclosporine A	S	0.00	S	0.00	N		N	
Dapsone	S	45.01	S	55.14	S	46.88	S	134.75
Dexamethasone	S	0.01	N		S	0.01	S	0.01
Dibenzopyrene	S	0.01	S	0.03	N		N	0.00
Diethanolamin	S	9.12	N		N		N	
Dimethyl sulfoxide	A	3.91	A	625.00	S	66.41	S	3.91
Ethanol	N		N		N		N	
FK 506	S	0.00	S	0.00	A		N	
FR167653	S	0.49	S	0.49	S	145.83	S	125.00
Histamine	S	9.12	A	5.86	N		S	3.91
Hydrocortisone	S	0.34	A	6.27	S	0.34	S	0.34
Hydrogen peroxide	S	7.82	S	31.25	N		N	
Isoniazid	S	1.97	N		N		S	800.00
Isophorone diisocyanate	S	0.98	N		S	0.98	S	0.98
Lead(II) acetate	S	3.91	S	3.91	N		N	

Lithium carbonate	S	0.98	A	116.67	S	0.39	S	0.39
Magnesium sulfate	N		N		S	15.63	N	
Mercuric chloride	N		A	3.91	S	1.95	S	1.95
Methanol	N		N		N		N	
Mitomycin C	S	0.36	N		N		N	
Nickel sulfate	S	14.32	S	32.55	S	250.00	S	250.00
Nitrofurazone	S	0.37	A	3.91	A		A	62.50
Pentamidine isethionate	S	3.91	S	32.55	S	3.91	S	3.91
p-Nitroaniline	S	0.98	S	1.95	S	1.47	S	2.45
Pyrimethamine	S	0.04	N		N		N	
Ribavirin	A	15.63	A	187.50	A	5.86	N	
Sodium bromate	S	125.00	N		N		N	
Sodium dodecyl sulfate	N		N		N		N	
Dibutyl phthalate	S	0.98	S	1.95	S	39.07	S	31.25
Triethanolamine	S	187.50	S	1416.67	N		N	
Hexachlorobenzene	N		N		N		N	
Citral	S	0.36	S	1.37	N		N	
Trichloroethylene	N		N		N		N	
Chloroplatinic acid	N		N		N		S	15.63
Formaldehyde	S	1.71	N		S	15.63	S	15.63
Diesel exhaust particles	S	39.07	A	47.53	N		S	62.50
Azathioprine	N		A	40.01	A	9.23	N	
Chloroquine	S	0.05	S	0.02	S	10.00	S	30.00
Colchicine	A	0.29	A	0.06	A	0.02	A	20.00
Digoxin	S	0.01	S	0.02	N		N	
Methotrexate	A	0.45	A	0.09	N		N	
Minocycline	S	8.33	S	5.00	N		N	
Mizoribine	N		N		A	5.20	A	7.45
Mycophenolic acid	A	0.38	A	6.24	N		N	
Nicotinamide	A	0.10	A	110.03	S	3.00	S	10.00
Rapamycin	A	0.00	N		A	0.91	N	
Sulfasalazine	S	36.00	S	1.20	S	7.80	S	1.20
Warfarin	A	23.33	N		S	30.00	S	0.00

Table 2 Modified MITA data set (60 化学物質)

No	Chemicals	IL-2		IFN- $\gamma$		IL-1 $\beta$		IL-8		IL-8 Luc assay	
		Judge	LOEL	Judge	LOEL	Judge	LOEL	Judge	LOEL	Judge	LOEL
1	2,4-Diaminotoluene	N		A	62.50	N		S	0.98	N	
2	2-Aminoanthracene	S	0.81	S	5.86	S	2.03	N		S	0.040
3	2-Mercaptobenzothiazole	N		N		N		S	125.00	S	0.20
4	Acetaminophen	A	33.33	A	33.33	A	166.67	A	100.00		
5	Actinomycin D	S	0.00	S	0.01	N		S	0.00	S	0.05
6	Aluminum chloride	S	3.91	S	62.50	N		N			
7	Amphoterycin B	S	0.78	S	2.08	A	3.13	A	7.82		
8	Benzethonium chloride	S	1.95	S	1.95	S	3.91	N			
9	Chlorpromazine	S	3.91	S	3.91	S	7.81	S	7.81		
10	Cisplatin	S	0.24	S	1.22	N		N			
11	Cobalt chloride	S	3.91	S	9.12	S	3.91	S	125.00	S	0.01
12	Cyclophosphamide	N		A	168.00	N		N			
13	Cyclosporine A	S	0.00	S	0.00	N		N			
14	Dapsone	S	45.01	S	55.14	S	46.88	S	134.75	N	
15	Dexamethasone	S	0.01	N		S	0.01	S	0.01	N	
16	Dibenzopyrene	S	0.01	S	0.03	N		N	0.00		
17	Diethanolamin	S	9.12	N		N		N			
18	Dimethyl sulfoxide	A	3.91	A	625.00	S	66.41	S	3.91	N	
19	Ethanol	N		N		N		N			
20	FK 506	S	0.00	S	0.00	A		N			
21	FR167653	S	0.49	S	0.49	S	145.83	S	125.00	N	
22	Histamine	S	9.12	A	5.86	N		S	3.91	S	0.06
23	Hydrocortisone	S	0.34	A	6.27	S	0.34	S	0.34	N	
24	Hydrogen peroxide	S	7.82	S	31.25	N		N		S	0.01
25	Isoniazid	S	1.97	N		N		S	800.00	N	
26	Isophorone diisocyanate	S	0.98	N		S	0.98	S	0.98	S	0.03
27	Lead(II) acetate	S	3.91	S	3.91	N		N			

28	Lithium carbonate	S	0.98	A	116.67	S	0.39	S	0.39	S	0.25
29	Magnesium sulfate	N		N		S	15.63	N		S	0.002
30	Mercuric chloride	N		A	3.91	S	1.95	S	1.95	S	0.00005
31	Methanol	N		N		N		N			
32	Mitomycin C	S	0.36	N		N		N			
33	Nickel sulfate	S	14.32	S	32.55	S	250.00	S	250.00	S	0.004
34	Nitrofurazone	S	0.37	A	3.91	A		A	62.50		
35	Pentamidine isethionate	S	3.91	S	32.55	S	3.91	S	3.91	N	
36	p-Nitroaniline	S	0.98	S	1.95	S	1.47	S	2.45	N	
37	Pyrimethamine	S	0.04	N		N		N			
38	Ribavirin	A	15.63	A	187.50	A	5.86	N			
39	Sodium bromate	S	125.00	N		N		N			
40	Sodium dodecyl sulfate	N		N		N		N			
41	Dibutyl phthalate	S	0.98	S	1.95	S	39.07	S	31.25	N	
42	Triethanolamine	S	187.50	S	1416.67	N		N			
43	Hexachlorobenzene	N		N		N		N			
44	Citral	S	0.36	S	1.37	N		N		S	0.0025
45	Trichloroethylene	N		N		N		N			
46	Chloroplatinic acid	N		N		N		S	15.63	S	0.0005
47	Formaldehyde	S	1.71	N		S	15.63	S	15.63	S	0.0004
48	Diesel exhaust particles	S	39.07	A	47.53	N		S	62.50	S	0.05
49	Azathioprine	N		A	40.01	A	9.23	N			
50	Chloroquine	S	0.05	S	0.02	S	10.00	S	30.00		
51	Colchicine	A	0.29	A	0.06	A	0.02	A	20.00		
52	Digoxin	S	0.01	S	0.02	N		N			
53	Methotrexate	A	0.45	A	0.09	N		N			
54	Minocycline	S	8.33	S	5.00	N		N			
55	Mizoribine	N		N		A	5.20	A	7.45		
56	Mycophenolic acid	A	0.38	A	6.24	N		N			
57	Nicotinamide	A	0.10	A	110.03	S	3.00	S	10.00		
58	Rapamycin	A	0.00	N		A	0.91	N			
59	Sulfasalazine	S	36.00	S	1.20	S	7.80	S	1.20		
60	Warfarin	A	23.33	N		S	30.00	S	0.00		

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Table 3. Modified MITA data set (IL-8 レポーター活性 vs. IL-8 Luc assay)

Chemicals	IL-2		IFN- $\gamma$		IL-1 $\beta$		IL-8		IL-8 Luc assay	
	Judge	LOEL	Judge	LOEL	Judge	LOEL	Judge	LOEL	Judge	LOEL
Actinomycin D	S	0.00	S	0.01	N		<b>S</b>	0.00	<b>S</b>	0.05
Dexamethasone	S	0.01	N		S	0.01	<b>S</b>	0.01	<b>N</b>	
Warfarin	A	23.33	N		S	30.00	<b>S</b>	0.10		
Hydrocortisone	S	0.34	A	6.27	S	0.34	<b>S</b>	0.34	<b>N</b>	
Lithium carbonate	S	0.98	A	116.67	S	0.39	<b>S</b>	0.39	<b>S</b>	0.25
Isophorone diisocyanate	S	0.98	N		S	0.98	<b>S</b>	0.98	<b>S</b>	0.03
2,4-Diaminotoluene	N		A	62.50	N		<b>S</b>	0.98	<b>N</b>	
Sulfasalazine	S	36.00	S	1.20	S	7.80	<b>S</b>	1.20		
Mercuric chloride	N		A	3.91	S	1.95	<b>S</b>	1.95	<b>S</b>	0.00
p-Nitroaniline	S	0.98	S	1.95	S	1.47	<b>S</b>	2.45	<b>N</b>	
Pentamidine isethionate	S	3.91	S	32.55	S	3.91	<b>S</b>	3.91	<b>N</b>	
Histamine	S	9.12	A	5.86	N		<b>S</b>	3.91	<b>S</b>	0.06
Dimethyl sulfoxide	A	3.91	A	625.00	S	66.41	<b>S</b>	3.91	<b>N</b>	
Chlorpromazine	S	3.91	S	3.91	S	7.81	<b>S</b>	7.81		
Nicotinamide	A	0.10	A	110.03	S	3.00	<b>S</b>	10.00		
Formaldehyde	S	1.71	N		S	15.63	<b>S</b>	15.63	<b>S</b>	0.00
Chloroplatinic acid	N		N		N		<b>S</b>	15.63	<b>S</b>	0.00
Chloroquine	S	0.05	S	0.02	S	10.00	<b>S</b>	30.00		
Dibutyl phthalate	S	0.98	S	1.95	S	39.07	<b>S</b>	31.25	<b>N</b>	
Diesel exhaust particles	S	39.07	A	47.53	N		<b>S</b>	62.50	<b>S</b>	0.05
FR167653	S	0.49	S	0.49	S	145.83	<b>S</b>	125.00	<b>N</b>	
Cobalt chloride	S	3.91	S	9.12	S	3.91	<b>S</b>	125.00	<b>S</b>	0.01
2-Mercaptobenzothiazole	N		N		N		<b>S</b>	125.00	<b>S</b>	0.20
Dapsone	S	45.01	S	55.14	S	46.88	<b>S</b>	134.75	<b>N</b>	
Nickel sulfate	S	14.32	S	32.55	S	250.00	<b>S</b>	250.00	<b>S</b>	0.00
Isoniazid	S	1.97	N		N		<b>S</b>	800.00	<b>N</b>	
Citral	S	0.36	S	1.37	N		<b>N</b>		<b>S</b>	0.00
2-Aminoanthracene	S	0.81	S	5.86	S	2.03	<b>N</b>		<b>S</b>	0.04
Hydrogen peroxide	S	7.82	S	31.25	N		<b>N</b>		<b>S</b>	0.01
Magnesium sulfate	N		N		S	15.63	<b>N</b>		<b>S</b>	0.00

Table 4. Modified MITA data (IL-2 レポーター活性)

No	Chemicals	IL-2		IFN- $\gamma$		IL-1 $\beta$		IL-8		IL-8 Luc assay	
		Judge	LOEL	Judge	LOEL	Judge	LOEL	Judge	LOEL	Judge	LOEL
21	FK 506	S	0.00	S	0.00	A		N			
13	Cyclosporine A	S	0.00	S	0.00	N		N			
5	Actinomycin D	S	0.00	S	0.01	N		S	0.00	S	0.05
52	Digoxin	S	0.01	S	0.02	N		N			
15	Dexamethasone	S	0.01	N		S	0.01	S	0.01	N	
16	Dibenzopyrene	S	0.01	S	0.03	N		N	0.00		
38	Pyrimethamine	S	0.04	N		N		N			
50	Chloroquine	S	0.05	S	0.02	S	10.00	S	30.00		
10	Cisplatin	S	0.24	S	1.22	N		N			
24	Hydrocortisone	S	0.34	A	6.27	S	0.34	S	0.34	N	
33	Mitomycin C	S	0.36	N		N		N			
44	Citral	S	0.36	S	1.37	N		N		S	0.00
35	Nitrofurazone	S	0.37	A	3.91	A		A	62.50		
22	FR167653	S	0.49	S	0.49	S	145.83	S	125.00	N	
7	Amphoterycin B	S	0.78	S	2.08	A	3.13	A	7.82		
2	2-Aminoanthracene	S	0.81	S	5.86	S	2.03	N		S	0.04
29	Lithium carbonate	S	0.98	A	116.67	S	0.39	S	0.39	S	0.25
17	Dibutyl phthalate	S	0.98	S	1.95	S	39.07	S	31.25	N	
27	Isophorone diisocyanate	S	0.98	N		S	0.98	S	0.98	S	0.03
37	p-Nitroaniline	S	0.98	S	1.95	S	1.47	S	2.45	N	
47	Formaldehyde	S	1.71	N		S	15.63	S	15.63	S	0.00
8	Benzethonium chloride	S	1.95	S	1.95	S	3.91	N			
26	Isoniazid	S	1.97	N		N		S	800.00	N	
6	Aluminum chloride	S	3.91	S	62.50	N		N			
9	Chlorpromazine	S	3.91	S	3.91	S	7.81	S	7.81		
11	Cobalt chloride	S	3.91	S	9.12	S	3.91	S	125.00	S	0.01
28	Lead(II) acetate	S	3.91	S	3.91	N		N			

36	Pentamidine isethionate	S	3.91	S	32.55	S	3.91	S	3.91	N	
25	Hydrogen peroxide	S	7.82	S	31.25	N		N		S	0.01
54	Minocycline	S	8.33	S	5.00	N		N			
23	Histamine	S	9.12	A	5.86	N		S	3.91	S	0.06
18	Diethanolamin	S	9.12	N		N		N			
34	Nickel sulfate	S	14.32	S	32.55	S	250.00	S	250.00	S	0.00
59	Sulfasalazine	S	36.00	S	1.20	S	7.80	S	1.20		
48	Diesel exhaust particles	S	39.07	A	47.53	N		S	62.50	S	0.05
14	Dapsone	S	45.01	S	55.14	S	46.88	S	134.75	N	
40	Sodium bromate	S	125.00	N		N		N			
42	Triethanolamine	S	187.50	S	1416.67	N		N			
1	2,4-Diaminotoluene	N		A	62.50	N		S	0.98	N	
3	2-Mercaptobenzothiazole	N		N		N		S	125.00	S	0.20
12	Cyclophosphamide	N		A	168.00	N		N			
20	Ethanol	N		N		N		N			
30	Magnesium sulfate	N		N		S	15.63	N		S	0.00
31	Mercuric chloride	N		A	3.91	S	1.95	S	1.95	S	0.00
32	Methanol	N		N		N		N			
41	Sodium dodecyl sulfate	N		N		N		N			
43	Hexachlorobenzene	N		N		N		N			
45	Trichloroethylene	N		N		N		N			
46	Chloroplatinic acid	N		N		N		S	15.63	S	0.00
49	Azathioprine	N		A	40.01	A	9.23	N			
55	Mizoribine	N		N		A	5.20	A	7.45		
58	Rapamycin	A	0.00	N		A	0.91	N			
57	Nicotinamide	A	0.10	A	110.03	S	3.00	S	10.00		
51	Colchicine	A	0.29	A	0.06	A	0.02	A	20.00		
56	Mycophenolic acid	A	0.38	A	6.24	N		N			
53	Methotrexate	A	0.45	A	0.09	N		N			
19	Dimethyl sulfoxide	A	3.91	A	625.00	S	66.41	S	3.91	N	
39	Ribavirin	A	15.63	A	187.50	A	5.86	N			
60	Warfarin	A	23.33	N		S	30.00	S	0.00		
4	Acetaminophen	A	33.33	A	33.33	A	166.67	A	100.00		



Table 5. Modified MITA (IL-8 Luc assay)

No	Chemicals	IL-2		IFN- $\gamma$		IL-1 $\beta$		IL-8		IL-8 Luc assay	
		Judge	LOEL	Judge	LOEL	Judge	LOEL	Judge	LOEL	Judge	LOEL
31	Mercuric chloride	N		A	3.91	S	1.95	S	1.95	<b>S</b>	0.00005
47	Formaldehyde	S	1.71	N		S	15.63	S	15.63	<b>S</b>	0.00044
46	Chloroplatinic acid	N		N		N		S	15.63	<b>S</b>	0.00052
30	Magnesium sulfate	N		N		S	15.63	N		<b>S</b>	0.00200
44	Citral	S	0.36	S	1.37	N		N		<b>S</b>	0.00252
34	Nickel sulfate	S	14.32	S	32.55	S	250.00	S	250.00	<b>S</b>	0.00449
25	Hydrogen peroxide	S	7.82	S	31.25	N		N		<b>S</b>	0.00508
11	Cobalt chloride	S	3.91	S	9.12	S	3.91	S	125.00	<b>S</b>	0.00572
27	Isophorone diisocyanate	S	0.98	N		S	0.98	S	0.98	<b>S</b>	0.03317
2	2-Aminoanthracene	S	0.81	S	5.86	S	2.03	N		<b>S</b>	0.04000
5	Actinomycin D	S	0.00	S	0.01	N		S	0.00	<b>S</b>	0.04588
48	Diesel exhaust particles	S	39.07	A	47.53	N		S	62.50	<b>S</b>	0.05320
23	Histamine	S	9.12	A	5.86	N		S	3.91	<b>S</b>	0.05833
3	2-Mercaptobenzothiazole	N		N		N		S	125.00	<b>S</b>	0.19907
29	Lithium carbonate	S	0.98	A	116.67	S	0.39	S	0.39	<b>S</b>	0.25024
41	Sodium dodecyl sulfate	N		N		N		N		<b>S</b>	9.80000

Table 6. ECVAM 感作性試験開発用試験薬の IL-1 $\beta$ および IL-8 レポーター細胞による評価

Chemicals	IL-8 Luc assay			IL-1b reporter assay		
	1st	2nd	Judgment	1st	2nd	Judgment
Oxazolone	P	P	Sensitizer	P	P	Sensitizer
4-NBB	P	P	Sensitizer	P	P	Sensitizer
Glyoxal	P	P	Sensitizer	P	P	Sensitizer
2-MBT	P	P	Sensitizer	P	P	Sensitizer
DNCB	P	P	Sensitizer	P	P	Sensitizer
MDGN	P	P	Sensitizer	P	P	Sensitizer
Cinnamal	P	P	Sensitizer	P	P	Sensitizer
TMTD	P	P	Sensitizer	P	P	Sensitizer
PPD	P	P	Sensitizer	N	N	Non-sensitizer
Isoeugenol	P	P	Sensitizer	N	N	Non-sensitizer
Eugenol	P	P	Sensitizer	P	P	Sensitizer
Cinnamic alcohol	P	P	Sensitizer	P	P	Sensitizer
Glycerol	N	N	Non-sensitizer	N	N	Non-sensitizer
Salicylic acid	N	N	Non-sensitizer	N	N	Non-sensitizer
Lactic acid	N	N	Non-sensitizer	N	N	Non-sensitizer
SLS	P	P	Sensitizer	N	N	Non-sensitizer