

m-フェニレンジアミン=二塩酸塩の
ラット及びマウスを用いた
経口によるがん原性試験結果報告書

付 録

(I-1～I-14 ; 表)

中央労働災害防止協会
日本バイオアッセイ研究センター

付録表 I - 1

被験物質使用ロット一覧

メタフェニレンジアミン・二塩酸塩の使用ロット一覧

試験の種類		試験番号	ロット番号	入荷日付	投与期間
急性	ラット	0007	L T L 6 7 2 5	1983.02.22	1983.03.16
	マウス	0008	〃	〃	1983.03.17
14日間	ラット	0026	P E G 5 9 8 2	1983.10.19	1983.10.24～1983.11.07
	マウス	0027	〃	〃	1983.10.25～1983.11.08
亜慢性	ラット	0038	C D R 2 7 3 8	1984.01.21	1984.02.06～1984.05.10
	マウス	0039	〃	〃	1984.02.13～1984.05.17
がん原性	ラット・マウス	0059, 60	C D G 0 4 1 0	1984.11.02	1984.11.19～1985.11.17
		〃	S T R 0 8 7 3	1985.11.13	1985.11.18～1986.02.08

付録表 I - 2

調製被験物質の濃度と安定性（急性試験）

付録表 I - 2

メタフェニレンジアミン二塩酸塩の調製濃度および安定性

試験の種類：急性、経口

試験番号：0007, 0008

	設定濃度(ppm)	調製濃度(ppm)	調製後1日目の濃度(ppm)*
ラット (0007)	80,000	77,014	79,710
	47,000	46,858	————
	27,700	27,604	————
	16,300	16,066	————
	9,600	9,259	————
マウス (0008)	34,500	34,726	————
	23,000	23,381	————
	15,300	15,644	————
	10,200	10,209	————
	6,800	6,796	6,624

* 安定性については最高濃度と最低濃度について確認した。

付録表 I - 3

調製被験物質の濃度と安定性（2週間試験）

付録表 I - 3

メタフェニレンジアミン二塩酸塩の調製濃度および安定性

試験の種類： 14日間、経口混水

試験番号： 0026, 0027

	設定濃度(ppm)	調製濃度(ppm)	調製後4日目の濃度(ppm)
ラット (0026)	22,500	22,388	22,617
	7,500	7,552	7,663
	2,500	2,674	2,627
	833	844	858
	278	293	288
マウス (0027)	9,000	8,825	9,124
	3,000	2,920	3,022
	1,000	976	1,002
	333	323	331
	111	108	114

付録表 I - 4

調製被験物質の濃度と安定性（13週間試験）

付録表 I - 4

メタフェニレンジアミン二塩酸塩の調製濃度および安定性

試験の種類：亜急性（13週間）、経口混水
試験番号：0038, 0039

	設定濃度(ppm)	調製濃度(ppm)*	調製後4日目の濃度(ppm)
ラット (0038)	1,000	993.5	1001.4
	500	500.2	504.6
	250	251.3	252.6
	125	125.8	128.6
	62.5	62.5	64.6
マウス (0039)	2,000	2035.3	2014.3
	667	687.7	680.3
	222	227.4	225.9
	74.1	75.4	75.0
	24.7	25.6	25.0

* 試験期間中の3回測定の平均値

付録表 I - 5

調製被験物質の濃度と安定性（がん原性試験）

付録表 I - 5

メタフェニレンジアミン二塩酸塩の調製濃度および安定性

試験の種類：がん原性（2年間）．経口混水

試験番号：0059, 0060

	設定濃度 (ppm)	* 調製濃度 (ppm)	** 調製後4日目の濃度 (ppm)	*** 調製後7日目の濃度 (ppm)
ラット (0059)	400	400.5	391.0	404.0
	160	158.7	157.6	154.4
	64	64.3	63.8	63.4
マウス (0060)	180	179.5	176.0	177.1
	60	59.6	59.8	58.0
	20	20.1	20.9	19.6

* 投与試験期間中9回測定の平均値
 ** // 3回測定 //
 *** // 1回測定値

付録表 I - 6

被験物質摂取量（ラット・2週間試験）

TABLE CHEMICAL INTAKE CHANGES (MG/KG/DAY)

STADY NO. 0026

SEX	DOSE LEVEL (PPM)	ADMINISTRATION (DAYS)			
		4	7	10	14
MALE	CONTROL	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000
	278	34.349 ± 2.899	31.585 ± 3.681	29.054 ± 2.881	27.006 ± 1.961
	833	62.227 ± 6.670	69.963 ± 4.198	65.684 ± 4.578	63.023 ± 2.250
	2500	49.723 ± 19.824	50.384 ± 23.645	64.954 ± 22.722	95.375 ± 20.98
	7500	67.178 ± 21.823	96.060 ± 39.701	110.013 ± 27.336	-
	22500	122.521 ± 41.933	160.035 ± 53.210	160.264 ± 37.534	-
FEMALE	CONTROL	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000
	278	32.398 ± 2.318	31.012 ± 2.613	54.546 ± 81.604	27.444 ± 1.797
	833	41.193 ± 7.497	68.050 ± 4.086	62.083 ± 5.632	62.724 ± 3.882
	2500	35.185 ± 6.790	44.103 ± 28.083	53.971 ± 26.604	86.158 ± 21.62
	7500	72.940 ± 10.885	86.100 ± 20.031	227.751 14.518	-
	22500	109.319 ± 30.797	167.592 ± 64.239	387.405 ± 159.234	-

付録表 I - 7

被験物質摂取量（ラット・13週間試験）

TABLE

CHEMICAL INTAKE CHANGES (MG/KG/DAY)

STUDY NO. : 0038

SEX	DOSE LEVEL (MG/KG)	ADMINISTRATION (WEEKS)						
		1	2	3	4	5	6	7
MALE	0	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000
	62.5	8.395 ± 0.316	7.232 ± 0.335	6.469 ± 0.333	5.777 ± 0.348	5.327 ± 0.361	5.182 ± 0.634	4.704 ± 0.435
	125	16.502 ± 0.443	13.913 ± 0.452	12.775 ± 0.771	11.375 ± 0.800	10.323 ± 0.877	9.423 ± 0.696	8.850 ± 0.713
	250	34.420 ± 1.638	28.529 ± 1.231	26.234 ± 1.266	23.094 ± 1.876	21.990 ± 2.923	19.366 ± 1.525	18.175 ± 2.151
	500	49.202 ± 3.254	42.491 ± 2.023	38.921 ± 2.147	33.536 ± 1.307	30.831 ± 0.926	27.698 ± 0.972	26.450 ± 1.042
	1000	75.184 ± 4.570	77.124 ± 3.695	71.979 ± 3.516	60.513 ± 3.043	56.346 ± 3.155	50.550 ± 3.097	49.734 ± 2.425
FEMALE	0	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000
	62.5	9.574 ± 0.567	8.643 ± 1.254	8.552 ± 2.096	8.174 ± 2.081	7.429 ± 1.921	7.300 ± 1.907	7.009 ± 1.879
	125	18.816 ± 1.005	16.195 ± 0.905	15.746 ± 2.141	15.364 ± 3.152	14.829 ± 3.058	16.073 ± 5.808	15.589 ± 5.904
	250	33.965 ± 1.895	30.353 ± 2.482	29.539 ± 5.041	26.063 ± 3.488	26.770 ± 6.200	21.735 ± 2.707	20.825 ± 2.389
	500	42.386 ± 4.213	42.861 ± 2.448	42.175 ± 1.331	36.548 ± 2.815	31.733 ± 1.754	29.621 ± 1.367	31.028 ± 4.380
	1000	49.877 ± 9.117	79.633 ± 4.117	77.301 ± 6.147	64.372 ± 3.969	57.402 ± 4.296	63.144 ± 18.715	53.566 ± 4.198
(C330)								

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TABLE

CHEMICAL INTAKE CHANGES (MG/KG/DAY)

STUDY NO. : 0038

SEX	DOSE LEVEL (MG/KG)	ADMINISTRATION (WEEKS)					
		8	9	10	11	12	13
MALE	0	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000
	62.5	4.335 ± 0.306	4.116 ± 0.248	3.964 ± 0.260	3.855 ± 0.234	3.238 ± 0.099	3.586 ± 0.219
	125	8.195 ± 0.541	7.883 ± 0.445	7.561 ± 0.411	7.247 ± 0.331	6.311 ± 0.252	6.841 ± 0.287
	250	16.925 ± 2.346	16.473 ± 1.863	16.153 ± 2.070	15.216 ± 1.840	12.957 ± 0.600	14.525 ± 2.109
	500	24.451 ± 0.994	23.992 ± 0.894	22.912 ± 0.602	22.181 ± 1.256	20.989 ± 1.071	21.887 ± 0.783
	1000	45.291 ± 2.379	51.254 ± 14.178	43.113 ± 3.476	41.972 ± 2.729	41.025 ± 1.906	40.586 ± 1.795
FEMALE	0	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000
	62.5	6.895 ± 1.427	6.790 ± 1.777	7.034 ± 2.282	6.785 ± 1.877	5.170 ± 1.360	7.124 ± 2.898
	125	14.915 ± 4.275	14.702 ± 4.263	13.214 ± 3.544	12.948 ± 3.025	9.256 ± 1.529	11.594 ± 2.826
	250	20.047 ± 2.053	19.061 ± 1.953	18.207 ± 2.001	18.062 ± 2.873	15.259 ± 1.377	17.277 ± 2.981
	500	27.507 ± 1.000	26.454 ± 1.152	32.095 ± 13.233	24.668 ± 1.555	23.635 ± 1.437	24.077 ± 1.389
	1000	40.594 ± 3.981	51.389 ± 9.622	49.840 ± 3.672	56.322 ± 21.402	44.538 ± 3.466	48.770 ± 8.667
(C330)							

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付録表 I - 8

被験物質摂取量（ラット・がん原性試験）

TABLE

CHEMICAL INTAKE CHANGES (MG/KG/DAY)

STUDY NO. : 0060

SEX	DOSE LEVEL (PPM)	ADMINISTRATION (WEEKS)						
		1	2	3	4	5	6	7
MALE	CONTROL	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000
	20	3.986 ± 0.680	3.648 ± 0.605	3.322 ± 0.416	3.171 ± 0.396	3.109 ± 0.524	3.030 ± 0.541	2.814 ± 0.558
	60	11.393 ± 1.860	10.634 ± 1.756	9.866 ± 1.558	9.683 ± 1.859	9.063 ± 1.744	8.876 ± 1.841	8.314 ± 1.397
	180	33.183 ± 3.947	31.783 ± 3.623	29.451 ± 4.070	29.060 ± 4.873	27.866 ± 4.861	28.127 ± 6.183	25.024 ± 4.528
FEMALE	CONTROL	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000
	20	4.599 ± 0.612	4.365 ± 0.689	4.291 ± 0.920	4.313 ± 0.945	3.968 ± 0.710	3.943 ± 0.731	3.826 ± 0.683
	60	12.951 ± 3.369	13.881 ± 2.668	14.509 ± 3.535	13.818 ± 3.179	12.987 ± 2.258	12.043 ± 1.793	13.294 ± 3.205
	180	38.148 ± 5.504	41.422 ± 8.390	40.817 ± 10.129	38.713 ± 8.594	37.416 ± 8.985	33.466 ± 6.202	34.765 ± 7.835

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TABLE 1. CHEMICAL INTAKE CHANGES (MG/KG/DAY)

STUDY NO. : 0060

SEX	DOSE LEVEL (PPM)	ADMINISTRATION (WEEKS)							
		8	9	10	11	12	13	14	
MALE	CONTROL	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000
	20	2.891 ± 0.615	2.677 ± 0.557	2.574 ± 0.570	2.510 ± 0.727	2.299 ± 0.617	2.283 ± 0.469	2.212 ± 0.454	
	60	8.614 ± 1.614	7.910 ± 1.505	7.937 ± 1.825	7.447 ± 1.699	7.247 ± 1.852	7.074 ± 1.684	6.858 ± 1.646	
	180	25.425 ± 4.711	24.428 ± 5.688	23.965 ± 5.269	22.173 ± 4.594	22.039 ± 4.771	21.264 ± 5.000	20.739 ± 4.237	
FEMALE	CONTROL	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	
	20	3.767 ± 0.712	3.765 ± 0.737	3.733 ± 0.802	3.784 ± 0.987	3.502 ± 0.761	3.321 ± 0.699	3.241 ± 0.676	
	60	12.243 ± 2.341	11.323 ± 2.022	11.329 ± 2.629	11.751 ± 2.727	11.362 ± 2.737	10.641 ± 2.049	10.538 ± 2.186	
	180	35.588 ± 9.582	33.927 ± 6.402	32.059 ± 6.674	32.188 ± 7.395	30.072 ± 5.401	30.411 ± 6.793	29.942 ± 6.631	
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CHEMICAL INTAKE CHANGES (MG/KG/DAY)

SEX	DOSE LEVEL (PPM)	ADMINISTRATION (WEEKS)						
		16	18	20	22	24	26	28
MALE	CONTROL	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000
	20	2.133 ± 0.450	2.039 ± 0.490	1.983 ± 0.327	1.917 ± 0.483	1.811 ± 0.277	1.784 ± 0.253	1.765 ± 0.254
	60	6.653 ± 1.730	6.117 ± 1.132	6.194 ± 1.290	5.993 ± 1.319	5.780 ± 1.158	5.651 ± 1.108	5.570 ± 1.102
	180	20.315 ± 5.141	19.009 ± 3.411	18.924 ± 2.954	18.089 ± 3.612	17.585 ± 3.243	16.915 ± 2.749	16.637 ± 3.031
FEMALE	CONTROL	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000
	20	3.387 ± 0.750	3.222 ± 0.725	3.015 ± 0.594	3.127 ± 0.731	2.834 ± 0.476	2.707 ± 0.538	2.575 ± 0.451
	60	10.010 ± 2.024	9.988 ± 2.240	9.377 ± 1.885	9.089 ± 2.004	9.073 ± 1.984	9.106 ± 1.945	8.288 ± 1.701
	180	27.666 ± 5.806	28.481 ± 7.000	26.670 ± 5.630	26.256 ± 5.483	25.088 ± 5.409	26.416 ± 6.908	24.767 ± 6.270

CHEMICAL INTAKE CHANGES (MG/KG/DAY)

STUDY NO. : 0060

SEX	DOSE LEVEL (PPM)	ADMINISTRATION (WEEKS)						
		30	32	34	36	38	40	42
MALE	CONTROL	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000
	20	1.811 ± 0.256	1.784 ± 0.256	1.764 ± 0.223	1.756 ± 0.223	1.714 ± 0.221	1.729 ± 0.232	1.744 ± 0.212
	60	5.552 ± 0.992	5.452 ± 0.872	5.432 ± 0.969	5.353 ± 0.826	5.221 ± 0.704	5.425 ± 0.775	5.428 ± 0.703
	180	16.417 ± 2.474	16.365 ± 2.523	15.828 ± 2.195	15.564 ± 1.956	16.031 ± 3.163	16.099 ± 2.231	16.523 ± 2.081
FEMALE	CONTROL	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000
	20	2.679 ± 0.579	2.552 ± 0.506	2.615 ± 0.588	2.732 ± 0.647	2.626 ± 0.582	2.530 ± 0.510	2.483 ± 0.539
	60	8.487 ± 1.522	8.037 ± 1.989	8.160 ± 1.444	7.918 ± 1.470	8.236 ± 1.932	7.949 ± 1.563	7.774 ± 1.472
	180	23.557 ± 5.064	23.119 ± 5.749	22.859 ± 5.302	22.619 ± 4.863	22.684 ± 4.970	22.001 ± 3.722	22.145 ± 4.141

TABLE

CHEMICAL INTAKE CHANGES (MG/KG/DAY)

STUDY NO. : 0060

SEX	DOSE LEVEL (PPM)	ADMINISTRATION (WEEKS)					
		44	46	48	50	52	54
MALE	CONTROL	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000
	20	1.735 ± 0.269	1.673 ± 0.187	1.730 ± 0.263	1.741 ± 0.206	1.689 ± 0.207	1.577 ± 0.268
	60	5.272 ± 0.658	5.307 ± 0.626	5.242 ± 0.608	5.243 ± 0.634	5.137 ± 0.671	5.033 ± 0.735
	180	15.387 ± 2.516	15.752 ± 1.855	15.824 ± 2.014	16.064 ± 2.043	15.718 ± 2.754	15.243 ± 3.030
FEMALE	CONTROL	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000
	20	2.334 ± 0.432	2.464 ± 0.428	2.571 ± 0.616	2.427 ± 0.436	2.454 ± 0.586	2.405 ± 0.571
	60	7.680 ± 1.399	7.743 ± 1.323	7.828 ± 1.588	7.796 ± 1.544	7.548 ± 1.700	6.953 ± 1.106
	180	21.827 ± 4.130	22.348 ± 3.834	23.257 ± 5.650	22.912 ± 5.777	23.383 ± 6.302	21.409 ± 4.902
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TABLE

CHEMICAL INTAKE CHANGES (MG/KG/DAY)

STUDY NO. : 0060

SEX	DOSE LEVEL (PPM)	ADMINISTRATION (WEEKS)							
		58	60	62	64	66	68	70	
MALE	CONTROL	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	
	20	1.673 ± 0.240	1.725 ± 0.238	1.744 ± 0.334	1.630 ± 0.258	1.665 ± 0.327	1.672 ± 0.359	1.657 ± 0.309	
	60	5.014 ± 0.629	5.077 ± 0.503	5.261 ± 0.608	5.027 ± 0.631	5.078 ± 0.605	4.910 ± 0.587	4.978 ± 0.614	
	180	15.183 ± 1.845	15.642 ± 1.766	15.851 ± 2.154	15.420 ± 2.012	15.225 ± 2.174	14.975 ± 2.358	14.852 ± 2.452	
FEMALE	CONTROL	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	
	20	2.468 ± 0.718	2.396 ± 0.523	2.392 ± 0.560	2.267 ± 0.750	2.261 ± 0.858	2.238 ± 0.807	2.099 ± 0.434	
	60	7.175 ± 1.510	7.199 ± 1.323	7.366 ± 1.244	6.716 ± 1.784	6.842 ± 1.571	6.518 ± 1.454	6.463 ± 1.247	
	180	20.147 ± 3.737	21.141 ± 4.843	21.269 ± 4.590	19.406 ± 4.604	20.193 ± 4.973	19.039 ± 3.858	19.034 ± 4.095	
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CHEMICAL INTAKE CHANGES (MG/KG/DAY)

STUDY NO. : 0060

SEX	DOSE LEVEL (PPM)	ADMINISTRATION (WEEKS)							
		72	74	76	78	80	82	84	
MALE	CONTROL	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	
	20	1.635 ± 0.334	1.619 ± 0.304	1.710 ± 0.311	1.649 ± 0.363	1.680 ± 0.393	1.759 ± 0.326	1.856 ± 0.459	
	60	5.082 ± 0.685	4.968 ± 0.521	5.005 ± 0.538	5.018 ± 0.912	5.082 ± 0.761	5.241 ± 0.696	5.358 ± 0.635	
	180	15.127 ± 3.821	14.730 ± 2.606	15.045 ± 2.605	15.275 ± 3.199	15.109 ± 2.565	16.213 ± 3.032	16.019 ± 3.224	
FEMALE	CONTROL	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	
	20	2.065 ± 0.405	2.037 ± 0.474	2.102 ± 0.428	2.033 ± 0.426	2.089 ± 0.476	2.176 ± 0.469	2.112 ± 0.371	
	60	6.361 ± 1.440	6.020 ± 1.168	6.198 ± 1.080	6.337 ± 1.584	5.932 ± 1.179	6.257 ± 1.213	6.167 ± 1.167	
	180	19.102 ± 3.856	18.295 ± 3.419	18.945 ± 3.728	18.375 ± 3.546	18.384 ± 3.580	19.040 ± 3.227	18.666 ± 2.942	

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CHEMICAL INTAKE CHANGES (MG/KG/DAY)

STUDY NO. : 0060

SEX	DOSE LEVEL (PPM)	ADMINISTRATION (WEEKS)						
		86	88	90	92	94	96	98
MALE	CONTROL	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000
	20	1.856 ± 0.311	1.766 ± 0.333	1.860 ± 0.454	1.852 ± 0.455	1.867 ± 0.402	1.898 ± 0.527	2.008 ± 0.568
	60	5.481 ± 1.016	5.336 ± 1.070	5.545 ± 1.269	5.677 ± 1.185	5.575 ± 1.041	5.795 ± 0.784	6.092 ± 1.244
	180	16.496 ± 4.491	16.905 ± 6.034	16.404 ± 4.878	16.340 ± 4.593	16.357 ± 4.216	17.218 ± 5.429	17.791 ± 4.984
FEMALE	CONTROL	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000
	20	2.128 ± 0.358	2.238 ± 0.522	2.219 ± 0.489	2.265 ± 0.589	2.294 ± 0.568	2.245 ± 0.633	2.399 ± 0.487
	60	5.867 ± 1.266	6.271 ± 1.612	6.283 ± 1.748	6.831 ± 1.920	7.061 ± 1.568	6.936 ± 1.461	6.931 ± 1.606
	180	19.092 ± 3.479	19.488 ± 3.913	18.992 ± 4.960	19.102 ± 4.298	20.527 ± 4.639	19.900 ± 4.758	20.726 ± 4.757

RAIS

TABLE

CHEMICAL INTAKE CHANGES (MG/KG/DAY)

STUDY NO. : 0060

SEX	DOSE LEVEL (PPM)	ADMINISTRATION (WEEKS)		
		100	102	104
MALE	CONTROL	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000
	20	1.930 ± 0.393	1.856 ± 0.317	1.896 ± 0.337
	60	6.088 ± 0.953	5.899 ± 1.388	5.941 ± 1.035
	180	17.765 ± 4.939	17.796 ± 3.616	17.405 ± 3.461
FEMALE	CONTROL	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000
	20	2.418 ± 0.522	2.418 ± 0.561	2.359 ± 0.430
	60	7.523 ± 2.156	7.359 ± 1.711	6.991 ± 1.557
	180	20.827 ± 3.812	21.545 ± 4.514	21.883 ± 5.207
(C330)		RAIS		

付録表 I - 9

被験物質摂取量（マウス・2週間試験）

TABLE CHEMICAL INTAKE CHANGES (MG/KG/DAY)

STADY NO. 0027

SEX	DOSE LEVEL (PPM)	ADMINISTRATION (DAYS)			
		4	7	10	14
MALE	CONTROL	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000
	111	21.018 ± 3.924	20.944 ± 3.784	19.407 ± 4.850	18.592 ± 3.103
	333	37.489 ± 8.968	36.658 ± 2.983	31.945 ± 4.115	35.209 ± 3.866
	1000	34.597 ± 7.228	54.923 ± 9.888	63.170 ± 5.312	65.800 ± 10.043
	3000	40.658 ± 29.757	69.128 ± 16.916	66.596 ± 8.307	72.761 ± 19.278
	9000	54.094 ± 21.296	110.026 ± 16.148	162.813 ± 48.429	125.000 ± 0.000
FEMALE	CONTROL	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000
	111	23.272 ± 1.282	23.092 ± 1.641	22.252 ± 1.840	22.797 ± 2.543
	333	34.532 ± 4.719	38.969 ± 9.744	39.882 ± 5.970	40.766 ± 4.712
	1000	39.038 ± 7.639	63.711 ± 7.207	78.933 ± 14.362	90.810 ± 11.61
	3000	23.226 ± 7.758	83.371 ± 19.750	105.486 ± 25.036	-
	9000	69.944 ± 35.511	154.904 ± 28.777	-	-

付録表 I - 10

被験物質摂取量（マウス・13週間試験）

CHEMICAL INTAKE CHANGES (MG/KG/DAY)

RAIS

SEX	DOSE LEVEL (PPM)	ADMINISTRATION (WEEKS)						
		1	2	3	4	5	6	7
MALE	0	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000
	24.7	4.613 ± 0.389	4.501 ± 0.794	4.028 ± 0.652	3.754 ± 0.410	3.425 ± 0.397	3.335 ± 0.457	3.285 ± 0.743
	74.1	15.260 ± 3.365	13.330 ± 2.993	12.199 ± 2.228	11.509 ± 2.553	10.897 ± 2.834	10.008 ± 2.198	9.418 ± 2.617
	222	39.070 ± 5.618	38.694 ± 7.531	37.032 ± 9.341	32.563 ± 5.352	29.971 ± 4.191	29.131 ± 4.545	27.168 ± 3.160
	667	42.649 ± 4.305	57.030 ± 6.654	54.473 ± 5.931	51.847 ± 5.892	52.001 ± 7.514	50.433 ± 5.711	48.963 ± 6.454
	2000	77.505 ± 32.782	81.799 ± 10.475	96.478 ± 29.364	33.017 ± 32.601	27.562 ± 27.155	21.212 ± 12.618	24.615 ± 18.990
FEMALE	0	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000
	24.7	6.787 ± 1.420	7.033 ± 2.203	6.377 ± 1.724	6.966 ± 2.932	6.595 ± 2.514	6.786 ± 3.021	6.537 ± 2.834
	74.1	17.744 ± 2.158	18.637 ± 2.849	20.301 ± 5.304	20.312 ± 7.276	18.355 ± 5.075	16.756 ± 4.699	21.094 ± 10.353
	222	49.590 ± 11.004	52.852 ± 8.667	57.706 ± 19.071	60.602 ± 23.205	54.625 ± 18.764	52.723 ± 20.711	53.549 ± 22.982
	667	52.569 ± 17.064	71.303 ± 11.831	63.747 ± 10.408	65.126 ± 15.639	68.640 ± 18.240	68.871 ± 17.484	68.135 ± 13.408
	2000	71.372 ± 16.382	12.597 ± 13.236	35.690 ± 17.114	18.230 ± 35.402	68.154 ± 13.196	53.919 ± 42.022	41.139 ± 22.871

TABLE

CHEMICAL INTAKE CHANGES (MG/KG/DAY)

STUDY NO. : 0039

SEX	DOSE LEVEL (PPM)	ADMINISTRATION (WEEKS)					
		8	9	10	11	12	13
MALE	0	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000
	24.7	3.074 ± 0.590	3.061 ± 0.820	2.987 ± 0.741	2.849 ± 0.651	2.655 ± 0.547	2.514 ± 0.500
	74.1	8.603 ± 1.867	8.428 ± 2.233	8.640 ± 2.220	8.276 ± 2.427	7.822 ± 1.463	7.227 ± 1.838
	222	25.367 ± 2.599	23.999 ± 3.175	24.247 ± 3.307	21.764 ± 6.316	23.240 ± 4.871	23.474 ± 4.656
	667	46.859 ± 6.573	46.645 ± 9.490	48.487 ± 9.034	44.392 ± 9.894	46.663 ± 6.279	44.787 ± 8.675
	2000	17.808 ± 25.423	2.668 ± 9.369	3.218 ± 11.270	7.650 ± 9.794	2.714 ± 10.630	7.358 ± 5.847
FEMALE	0	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000
	24.7	5.032 ± 0.661	5.983 ± 2.196	5.847 ± 2.974	5.424 ± 1.797	4.688 ± 0.751	4.583 ± 1.093
	74.1	18.228 ± 6.272	17.877 ± 6.349	16.782 ± 3.720	14.027 ± 1.883	13.482 ± 0.968	13.750 ± 1.180
	222	52.113 ± 25.146	61.142 ± 52.217	48.249 ± 12.784	43.181 ± 19.538	43.226 ± 14.817	41.735 ± 19.424
	667	68.295 ± 11.953	69.496 ± 11.089	69.740 ± 12.225	71.968 ± 10.812	67.973 ± 7.401	68.157 ± 7.965
	2000	40.994 ± 21.176	4.267 ± 13.738	17.194 ± 5.864	20.719 ± 7.794	15.976 ± 6.564	12.176 ± 7.903
(C330)							

RAIS

付録表 I - 1 1

被験物質摂取量（マウス・がん原性試験）

STUDY NO. : 0059

SEX	DOSE LEVEL (PPM)	ADMINISTRATION (WEEKS)						
		1	2	3	4	5	6	7
MALE	CONTROL	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000
	64	8.726 ± 0.425	7.526 ± 0.340	6.341 ± 0.294	5.851 ± 0.370	5.523 ± 0.755	4.954 ± 0.302	4.678 ± 0.211
	160	21.491 ± 0.967	19.338 ± 2.088	16.857 ± 2.820	14.810 ± 1.138	13.838 ± 2.268	12.544 ± 1.233	12.141 ± 1.900
	400	45.974 ± 3.412	39.064 ± 2.857	33.166 ± 2.223	30.171 ± 1.971	28.187 ± 1.747	25.966 ± 1.673	24.568 ± 1.653
FEMALE	CONTROL	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000
	64	10.543 ± 0.880	9.626 ± 2.028	8.831 ± 2.170	8.165 ± 1.753	8.090 ± 2.055	7.732 ± 2.202	7.615 ± 2.479
	160	25.064 ± 2.162	21.707 ± 2.238	20.297 ± 3.556	20.070 ± 4.776	19.351 ± 4.867	19.713 ± 7.481	18.443 ± 6.052
	400	47.707 ± 3.325	38.983 ± 2.701	35.880 ± 2.719	31.307 ± 2.446	31.554 ± 3.293	29.262 ± 3.082	28.395 ± 2.559

(C330)

RAIS

CHEMICAL INTAKE CHANGES (MG/KG/DAY)

STUDY NO. : 0059

SEX	DOSE LEVEL (PPM)	ADMINISTRATION (WEEKS)							
		8	9	10	11	12	13	14	
MALE	CONTROL	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000
	64	4.555 ± 0.288	4.376 ± 0.564	4.108 ± 0.360	3.908 ± 0.199	3.786 ± 0.275	3.699 ± 0.357	3.567 ± 0.293	
	160	11.459 ± 1.166	11.197 ± 1.989	10.369 ± 1.301	9.870 ± 0.793	9.859 ± 1.556	9.142 ± 0.625	9.050 ± 1.257	
	400	23.374 ± 1.379	22.989 ± 1.305	21.831 ± 1.327	21.331 ± 1.239	20.893 ± 1.281	19.679 ± 0.949	18.985 ± 1.121	
FEMALE	CONTROL	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	
	64	7.228 ± 2.191	7.039 ± 1.778	6.925 ± 1.999	6.756 ± 2.113	6.521 ± 1.643	6.644 ± 2.015	6.197 ± 1.787	
	160	17.644 ± 4.956	17.510 ± 5.020	16.959 ± 5.262	15.985 ± 5.190	15.349 ± 3.429	15.058 ± 4.619	15.300 ± 4.754	
	400	27.413 ± 2.351	26.782 ± 2.228	25.485 ± 2.207	25.247 ± 2.008	24.655 ± 2.090	23.455 ± 1.964	22.990 ± 2.022	

RAIS

CHEMICAL INTAKE CHANGES (MG/KG/DAY)

STUDY NO. : 0059

SEX	DOSE LEVEL (PPM)	ADMINISTRATION (WEEKS)						
		16	18	20	22	24	26	28
MALE	CONTROL	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000
	64	3.567 ± 0.420	3.431 ± 0.365	3.381 ± 0.355	3.269 ± 0.243	3.180 ± 0.185	3.134 ± 0.127	3.091 ± 0.193
	160	9.073 ± 1.168	8.663 ± 0.643	8.532 ± 0.522	8.254 ± 1.053	8.147 ± 0.980	7.933 ± 0.496	7.792 ± 0.469
	400	19.645 ± 1.245	18.766 ± 1.203	18.729 ± 1.261	18.256 ± 1.159	18.082 ± 1.274	17.884 ± 1.250	17.824 ± 1.260
FEMALE	CONTROL	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000
	64	6.443 ± 1.713	6.572 ± 2.198	6.210 ± 1.616	5.939 ± 1.512	6.066 ± 1.843	5.995 ± 1.779	5.561 ± 1.537
	160	15.038 ± 4.096	13.903 ± 2.570	14.348 ± 3.795	14.103 ± 3.515	14.161 ± 4.181	13.198 ± 3.150	12.810 ± 3.583
	400	23.950 ± 1.744	22.612 ± 2.017	22.594 ± 1.992	22.612 ± 1.843	22.781 ± 1.905	23.875 ± 4.535	22.652 ± 3.254

CHEMICAL INTAKE CHANGES (MG/KG/DAY)

STUDY NO. : 0059

SEX	DOSE LEVEL (PPM)	ADMINISTRATION (WEEKS)						
		30	32	34	36	38	40	42
MALE	CONTROL	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000
	64	3.011 ± 0.159	3.048 ± 0.135	2.967 ± 0.149	2.947 ± 0.176	2.942 ± 0.218	2.941 ± 0.122	2.933 ± 0.155
	160	7.659 ± 0.460	7.744 ± 0.470	7.615 ± 0.444	7.600 ± 0.519	7.372 ± 0.506	7.462 ± 0.549	7.289 ± 0.463
	400	17.507 ± 1.333	17.945 ± 1.106	17.389 ± 1.066	17.205 ± 1.122	16.885 ± 1.114	17.086 ± 0.997	16.791 ± 1.001
FEMALE	CONTROL	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000
	64	5.361 ± 1.481	5.311 ± 1.422	5.221 ± 1.371	5.096 ± 1.331	4.946 ± 0.916	5.017 ± 1.383	5.040 ± 1.452
	160	12.724 ± 3.765	12.774 ± 3.505	12.269 ± 2.999	12.742 ± 4.215	11.995 ± 3.246	12.099 ± 3.802	11.640 ± 3.001
	400	22.127 ± 1.878	22.680 ± 2.032	21.964 ± 1.765	22.131 ± 1.760	22.266 ± 2.116	22.100 ± 1.729	22.439 ± 1.775
(C330)		RAIS						

TABLE

CHEMICAL INTAKE CHANGES (MG/KG/DAY)

STUDY NO. : 0059

SEX	DOSE LEVEL (PPM)	ADMINISTRATION (WEEKS)						
		44	46	48	50	52	54	56
MALE	CONTROL	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000
	64	2.914 ± 0.156	2.909 ± 0.123	2.851 ± 0.164	2.811 ± 0.124	2.883 ± 0.195	2.846 ± 0.176	2.921 ± 0.132
	160	7.374 ± 0.409	7.323 ± 0.404	7.316 ± 0.444	7.211 ± 0.441	7.216 ± 0.389	7.248 ± 0.542	7.117 ± 0.928
	400	16.762 ± 0.858	16.517 ± 0.860	16.741 ± 0.953	16.358 ± 1.193	16.604 ± 1.045	16.323 ± 1.031	16.827 ± 1.068
FEMALE	CONTROL	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000
	64	4.720 ± 0.934	4.569 ± 0.992	4.624 ± 1.269	4.733 ± 1.416	4.422 ± 1.001	4.504 ± 1.202	4.592 ± 1.315
	160	11.378 ± 2.685	11.506 ± 2.900	11.161 ± 2.368	11.759 ± 3.677	11.265 ± 2.309	10.748 ± 2.199	11.198 ± 2.818
	400	22.415 ± 1.861	22.341 ± 1.474	22.549 ± 1.543	22.560 ± 1.443	22.294 ± 1.789	23.268 ± 2.092	23.505 ± 2.418
(C330)								

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TABLE

CHEMICAL INTAKE CHANGES (MG/KG/DAY)

STUDY NO. : 0059

SEX	DOSE LEVEL (PPM)	ADMINISTRATION (WEEKS)						
		50	60	62	64	66	68	70
MALE	CONTROL	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000
	64	2.772 ± 0.160	2.682 ± 0.137	2.699 ± 0.156	2.792 ± 0.141	2.762 ± 0.179	2.776 ± 0.192	2.919 ± 0.243
	160	6.942 ± 0.393	6.900 ± 0.435	6.921 ± 0.466	7.196 ± 0.474	6.948 ± 0.459	7.072 ± 0.495	7.274 ± 0.538
	400	16.235 ± 1.097	15.506 ± 0.954	15.993 ± 1.358	16.136 ± 1.383	16.025 ± 1.404	16.231 ± 1.626	16.568 ± 2.179
FEMALE	CONTROL	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000
	64	4.223 ± 1.211	3.978 ± 0.774	3.936 ± 0.741	4.004 ± 0.746	3.848 ± 0.895	3.782 ± 0.756	3.787 ± 0.902
	160	10.543 ± 3.365	10.319 ± 2.030	9.911 ± 1.668	10.024 ± 2.130	9.420 ± 1.545	9.701 ± 2.579	9.657 ± 2.252
	400	22.446 ± 2.353	21.312 ± 2.593	21.411 ± 2.774	21.388 ± 2.884	21.605 ± 2.877	21.456 ± 3.079	21.591 ± 3.399

(C330)

RAIS

TABLE

CHEMICAL INTAKE CHANGES (MG/KG/DAY)

STUDY NO. : 0059

SEX	DOSF LEVEL (PPM)	ADMINISTRATION (WEEKS)						
		72	74	76	78	80	82	84
MALE	CONTROL	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000
	64	2.834 ± 0.223	2.828 ± 0.219	2.787 ± 0.340	2.847 ± 0.346	2.933 ± 0.424	3.000 ± 0.415	3.152 ± 0.489
	160	7.126 ± 0.566	7.117 ± 0.648	7.131 ± 0.640	7.161 ± 0.782	7.297 ± 0.866	7.340 ± 1.020	7.686 ± 1.028
	400	16.801 ± 2.289	16.648 ± 2.429	16.381 ± 3.089	16.435 ± 3.522	17.067 ± 3.990	17.144 ± 4.601	18.105 ± 5.530
FEMALE	CONTROL	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000
	64	3.717 ± 0.781	3.684 ± 0.722	3.726 ± 0.617	3.616 ± 0.585	3.702 ± 0.758	3.728 ± 0.831	3.647 ± 0.879
	160	9.260 ± 1.657	8.974 ± 1.424	8.808 ± 1.467	8.860 ± 1.530	8.887 ± 1.347	9.116 ± 1.519	9.291 ± 1.672
	400	21.850 ± 3.209	21.657 ± 4.357	21.390 ± 4.997	20.812 ± 4.907	21.838 ± 5.186	21.537 ± 5.391	22.319 ± 6.453

(C330)

RAIS

TABLE

CHEMICAL INTAKE CHANGES (MG/KG/DAY)

STUDY NO. : 0059

SEX	DOSE LEVEL (PPM)	ADMINISTRATION (WEEKS)						
		86	88	90	92	94	96	98
MALE	CONTROL	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000
	64	3.301 ± 0.544	3.412 ± 0.526	3.522 ± 0.666	3.604 ± 0.781	3.612 ± 0.707	3.642 ± 0.842	3.810 ± 0.907
	160	8.130 ± 1.228	8.237 ± 1.380	8.194 ± 1.369	8.604 ± 1.421	8.905 ± 1.727	8.870 ± 1.795	9.031 ± 1.826
	400	19.679 ± 5.502	19.670 ± 5.711	19.778 ± 5.493	20.533 ± 6.199	21.654 ± 6.442	22.631 ± 6.466	23.705 ± 7.660
FEMALE	CONTROL	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000
	64	4.063 ± 0.898	4.032 ± 0.998	3.782 ± 1.065	4.406 ± 1.225	4.401 ± 1.161	4.182 ± 1.017	4.467 ± 1.204
	160	9.694 ± 1.691	9.703 ± 1.804	9.755 ± 2.482	10.267 ± 2.533	11.162 ± 5.992	10.105 ± 2.319	10.262 ± 2.416
	400	23.952 ± 6.403	23.767 ± 6.372	24.087 ± 6.740	26.468 ± 8.115	26.989 ± 9.755	27.800 ± 9.538	30.200 ± 11.390
(C330)								
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TABLE

CHEMICAL INTAKE CHANGES (MG/KG/DAY)

STUDY NO. : 0059

SEX	DOSE LEVEL (PPM)	ADMINISTRATION (WEEKS)		
		100	102	104
MALE	CONTROL	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000
	64	3.722 ± 0.936	4.099 ± 1.318	4.311 ± 1.794
	160	9.052 ± 1.953	9.834 ± 2.409	10.788 ± 2.785
	400	26.120 ± 8.655	27.852 ± 10.397	28.462 ± 10.943
FEMALE	CONTROL	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.000
	64	4.594 ± 1.120	4.752 ± 1.314	4.611 ± 1.672
	160	10.479 ± 2.779	11.041 ± 3.075	10.794 ± 2.571
	400	30.782 ± 10.625	30.963 ± 13.347	32.859 ± 14.014

(C330)

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