1-クロロ-2-ニトロベンゼンのラットを用いた
経口投与によるがん原性試験（混餌試験）報告書

試験番号：0461

TABLES

TABLES

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TABLE 1 SURVIVAL ANIMAL NUMBERS AND BODY WEIGHT CHANGES OF MALE RATS IN THE 2-YEAR FEED STUDY OF 1-CHLORO-2-NITROBENZENE

Week on Study	Control		80 ppm			400 ppm			2000 ppm		
	Av. Wt.	No. of Surviv. <50>	Av. Wt.	% of cont.	No. of Surviv. <50>	Av. Wt.	% of cont.	No. of Surviv. <50>	Av. Wt.	% of cont.	No. of Surviv. <50>
0	126 (50)	50 / 50	126 (50)	100	50 / 50	126 (50)	100	50 / 50	126 (50)	100	50 / 50
1	153 (50)	50 / 50	154 (50)	101	50 / 50	152 (50)	99	50 / 50	141 (50)	92	50 / 50
2	186 (50)	50 / 50	186 (50)	100	50 / 50	183 (50)	98	50 / 50	167 (50)	90	50 / 50
3	206 (50)	50 / 50	207 (50)	100	50 / 50	203 (50)	99	50 / 50	184 (50)	89	50 / 50
4	228 (50)	50 / 50	231 (50)	101	50 / 50	226 (50)	99	50 / 50	204 (50)	89	50 / 50
5	243 (50)	50 / 50	244 (50)	100	50 / 50	240 (50)	99	50 / 50	218 (50)	90	50 / 50
6	255 (50)	50 / 50	257 (50)	101	50 / 50	253 (50)	99	50 / 50	231 (50)	91	50 / 50
7	268 (50)	50 / 50	271 (50)	101	50 / 50	266 (50)	99	50 / 50	244 (50)	91	50 / 50
8	278 (50)	50 / 50	281 (50)	101	50 / 50	277 (50)	100	50 / 50	254 (50)	91	50 / 50
9	289 (50)	50 / 50	290 (50)	100	50 / 50	286 (50)	99	50 / 50	264 (50)	91	50 / 50
10	298 (50)	50 / 50	299 (50)	100	50 / 50	295 (50)	99	50 / 50	270 (50)	91	50 / 50
11	308 (50)	50 / 50	308 (50)	100	50 / 50	303 (50)	98	50 / 50	277 (50)	90	50 / 50
12	313 (50)	50 / 50	313 (50)	100	50 / 50	307 (50)	98	50 / 50	282 (50)	90	50 / 50
13	319 (50)	50 / 50	320 (50)	100	50 / 50	314 (50)	98	50 / 50	288 (50)	90	50 / 50
14	324 (50)	50 / 50	325 (50)	100	50 / 50	319 (50)	98	50 / 50	294 (50)	91	50 / 50
18	343 (50)	50 / 50	345 (50)	101	50 / 50	340 (50)	99	50 / 50	312 (50)	91	50 / 50
22	356 (50)	50 / 50	360 (50)	101	50 / 50	356 (50)	100	50 / 50	324 (50)	91	50 / 50
26	367 (50)	50 / 50	370 (50)	101	50 / 50	367 (50)	100	50 / 50	333 (50)	91	50 / 50
30	382 (50)	50 / 50	387 (50)	101	50 / 50	382 (50)	100	50 / 50	342 (50)	90	50 / 50
34	392 (50)	50 / 50	395 (50)	101	50 / 50	391 (50)	100	50 / 50	349 (50)	89	50 / 50
38	397 (50)	50 / 50	401 (50)	101	50 / 50	396 (50)	100	50 / 50	352 (50)	89	50 / 50
42	406 (50)	50 / 50	409 (50)	101	50 / 50	404 (50)	100	50 / 50	356 (50)	88	50 / 50
46	411 (50)	50 / 50	415 (50)	101	50 / 50	410 (49)	100	49 / 50	359 (50)	87	50 / 50
50	415 (50)	50 / 50	420 (50)	101	50 / 50	412 (49)	99	49 / 50	357 (50)	86	50 / 50
54	419 (50)	50 / 50	424 (50)	101	50 / 50	416 (49)	99	49 / 50	359 (49)	86	49 / 50
58	422 (50)	50 / 50	426 (50)	101	50 / 50	417 (49)	99	49 / 50	358 (49)	85	49 / 50
62	429 (49)	49 / 50	431 (50)	100	50 / 50	421 (49)	98	49 / 50	354 (49)	83	49 / 50
66	431 (49)	49 / 50	433 (50)	100	50 / 50	421 (49)	98	49 / 50	348 (49)	81	49 / 50
70	432 (49)	49 / 50	433 (50)	100	50 / 50	419 (49)	97	49 / 50	339 (48)	78	48 / 50
74	436 (49)	49 / 50	435 (50)	100	50 / 50	420 (49)	96	49 / 50	331 (45)	76	45 / 50
78	438 (49)	49 / 50	437 (49)	100	49 / 50	419 (48)	96	48 / 50	318 (37)	73	37 / 50
82	435 (49)	49 / 50	432 (48)	99	48 / 50	410 (48)	94	48 / 50	306 (25)	70	25 / 50
86	428 (49)	49 / 50	427 (48)	100	48 / 50	403 (48)	94	48 / 50	297 (18)	69	18 / 50
90	429 (45)	45 / 50	421 (46)	98	46 / 50	395 (45)	92	45 / 50	301 (10)	70	10 / 50
94	421 (43)	43 / 50	414 (45)	98	45 / 50	381 (45)	90	45 / 50	274 (7)	65	7 / 50
98	415 (42)	42 / 50	408 (44)	98	44 / 50	375 (44)	90	44 / 50	281 (2)	68	2 / 50
102	408 (40)	40 / 50	400 (40)	98	40 / 50	360 (41)	88	41 / 50	213 (1)	52	1 / 50
104	395 (40)	40 / 50	394 (40)	100	40 / 50	355 (39)	90	39 / 50	－ (－)	－	0 / 50

< > : No. of effective animals, ( ) : No. of measured animals, Av. Wt. : Averaged body weight (Unit : g).

TABLE 2 SURVIVAL ANIMAL NUMBERS AND BODY WEIGHT CHANGES OF FEMALE RATS IN THE 2-YEAR FEED STUDY OF 1-CHLORO-2-NITROBENZENE

Week on Study	Control		80 ppm			400 ppm			2000 ppm		
	Av. Wt.	No. of Surviv. <50>	Av. Wt.	% of cont.	No. of Surviv. <50>	Av. Wt.	% of cont.	No. of Surviv. <50>	Av. Wt.	% of cont.	No. of Surviv. <50>
0	99 (50)	50 / 50	99 (50)	100	50 / 50	99 (50)	100	50 / 50	99 (50)	100	50 / 50
1	111 (50)	50 / 50	110 (50)	99	50 / 50	110 (50)	99	50 / 50	104 (50)	94	50 / 50
2	124 (50)	50 / 50	123 (50)	99	50 / 50	123 (50)	99	50 / 50	119 (50)	96	50 / 50
3	130 (50)	50 / 50	129 (50)	99	50 / 50	129 (50)	99	50 / 50	125 (50)	96	50 / 50
4	140 (50)	50 / 50	138 (50)	99	50 / 50	139 (50)	99	50 / 50	134 (50)	96	50 / 50
5	146 (50)	50 / 50	144 (50)	99	50 / 50	145 (50)	99	50 / 50	141 (50)	97	50 / 50
6	150 (50)	50 / 50	148 (50)	99	50 / 50	149 (50)	99	50 / 50	144 (50)	96	50 / 50
7	154 (50)	50 / 50	152 (50)	99	50 / 50	151 (50)	98	50 / 50	147 (50)	95	50 / 50
8	157 (50)	50 / 50	154 (50)	98	50 / 50	155 (50)	99	50 / 50	150 (50)	96	50 / 50
9	160 (50)	50 / 50	157 (50)	98	50 / 50	158 (50)	99	50 / 50	152 (50)	95	50 / 50
10	164 (50)	50 / 50	160 (50)	98	50 / 50	161 (50)	98	50 / 50	155 (50)	95	50 / 50
11	167 (50)	50 / 50	164 (50)	98	50 / 50	164 (50)	98	50 / 50	160 (50)	96	50 / 50
12	168 (50)	50 / 50	165 (50)	98	50 / 50	165 (50)	98	50 / 50	161 (50)	96	50 / 50
13	170 (50)	50 / 50	166 (50)	98	50 / 50	167 (50)	98	50 / 50	163 (50)	96	50 / 50
14	171 (50)	50 / 50	167 (50)	98	50 / 50	168 (50)	98	50 / 50	163 (50)	95	50 / 50
18	178 (50)	50 / 50	174 (50)	98	50 / 50	175 (50)	98	50 / 50	169 (50)	95	50 / 50
22	182 (50)	50 / 50	178 (50)	98	50 / 50	179 (50)	98	50 / 50	172 (50)	95	50 / 50
26	188 (50)	50 / 50	183 (50)	97	50 / 50	184 (50)	98	50 / 50	176 (50)	94	50 / 50
30	192 (50)	50 / 50	188 (50)	98	50 / 50	189 (50)	98	50 / 50	180 (50)	94	50 / 50
34	196 (50)	50 / 50	191 (50)	97	50 / 50	192 (50)	98	50 / 50	183 (50)	93	50 / 50
38	199 (50)	50 / 50	194 (50)	97	50 / 50	196 (50)	98	50 / 50	185 (50)	93	50 / 50
42	203 (50)	50 / 50	199 (50)	98	50 / 50	200 (50)	99	50 / 50	189 (50)	93	50 / 50
46	208 (50)	50 / 50	202 (50)	97	50 / 50	204 (50)	98	50 / 50	190 (50)	91	50 / 50
50	211 (50)	50 / 50	206 (50)	98	50 / 50	207 (50)	98	50 / 50	193 (50)	91	50 / 50
54	215 (50)	50 / 50	210 (50)	98	50 / 50	211 (50)	98	50 / 50	196 (50)	91	50 / 50
58	221 (50)	50 / 50	214 (50)	97	50 / 50	216 (50)	98	50 / 50	199 (50)	90	50 / 50
62	227 (50)	50 / 50	221 (50)	97	50 / 50	221 (50)	97	50 / 50	203 (49)	89	49 / 50
66	231 (50)	50 / 50	226 (50)	98	50 / 50	227 (50)	98	50 / 50	207 (49)	90	49 / 50
70	232 (49)	49 / 50	230 (50)	99	50 / 50	230 (50)	99	50 / 50	210 (48)	91	48 / 50
74	244 (49)	49 / 50	240 (50)	98	50 / 50	239 (49)	98	49 / 50	215 (48)	88	48 / 50
78	250 (48)	48 / 50	250 (50)	100	50 / 50	248 (49)	99	49 / 50	220 (48)	88	48 / 50
82	253 (48)	48 / 50	254 (50)	100	50 / 50	249 (49)	98	49 / 50	217 (48)	86	48 / 50
86	257 (47)	47 / 50	259 (50)	101	50 / 50	255 (49)	99	49 / 50	221 (48)	86	48 / 50
90	262 (45)	45 / 50	264 (50)	101	50 / 50	257 (49)	98	49 / 50	221 (48)	84	48 / 50
94	262 (44)	44 / 50	266 (50)	102	50 / 50	258 (49)	98	49 / 50	222 (47)	85	47 / 50
98	264 (43)	43 / 50	269 (48)	102	48 / 50	258 (47)	98	47 / 50	220 (44)	83	44 / 50
102	265 (41)	41 / 50	263 (44)	99	44 / 50	259 (46)	98	46 / 50	217 (40)	82	40 / 50
104	265 (41)	41 / 50	266 (42)	100	42 / 50	256 (45)	97	45 / 50	216 (39)	82	39 / 50

< > : No. of effective animals, ( ) : No. of measured animals, Av. Wt. : Averaged body weight (Unit : g).

TABLE 3 FOOD CONSUMPTION CHANGES OF MALE RATS IN THE 2-YEAR FEED STUDY OF 1-CHLORO-2-NITROBENZENE

Week on Study	Control		80 ppm			400 ppm			2000 ppm		
	Av. FC.	No. of Surviv. <50>	Av. FC.	% of cont.	No. of Surviv. <50>	Av. FC.	% of cont.	No. of Surviv. <50>	Av. FC.	% of cont.	No. of Surviv. <50>
1	12.5 (50)	50 / 50	12.5 (50)	100	50 / 50	12.3 (50)	98	50 / 50	10.5 (50)	84	50 / 50
2	13.6 (50)	50 / 50	13.8 (50)	101	50 / 50	13.4 (50)	99	50 / 50	12.4 (50)	91	50 / 50
3	14.3 (50)	50 / 50	14.5 (50)	101	50 / 50	14.1 (50)	99	50 / 50	13.0 (50)	91	50 / 50
4	14.6 (50)	50 / 50	14.8 (50)	101	50 / 50	14.6 (50)	100	50 / 50	13.5 (50)	92	50 / 50
5	14.6 (50)	50 / 50	14.9 (50)	102	50 / 50	14.8 (50)	101	50 / 50	13.7 (50)	94	50 / 50
6	14.0 (50)	50 / 50	14.4 (50)	103	50 / 50	14.1 (50)	101	50 / 50	13.4 (50)	96	50 / 50
7	14.4 (50)	50 / 50	14.7 (50)	102	50 / 50	14.4 (50)	100	50 / 50	13.7 (50)	95	50 / 50
8	14.2 (50)	50 / 50	14.6 (50)	103	50 / 50	14.5 (50)	102	50 / 50	13.9 (50)	98	50 / 50
9	14.3 (50)	50 / 50	14.7 (50)	103	50 / 50	14.4 (50)	101	50 / 50	13.8 (50)	97	50 / 50
10	14.5 (50)	50 / 50	14.7 (50)	101	50 / 50	14.6 (50)	101	50 / 50	13.8 (49)	95	50 / 50
11	14.7 (50)	50 / 50	14.9 (50)	101	50 / 50	14.7 (50)	100	50 / 50	13.9 (50)	95	50 / 50
12	14.6 (50)	50 / 50	14.7 (50)	101	50 / 50	14.4 (50)	99	50 / 50	14.0 (50)	96	50 / 50
13	14.6 (50)	50 / 50	14.8 (50)	101	50 / 50	14.7 (50)	101	50 / 50	14.0 (50)	96	50 / 50
14	14.4 (50)	50 / 50	14.6 (50)	101	50 / 50	14.5 (50)	101	50 / 50	13.9 (50)	97	50 / 50
18	14.5 (50)	50 / 50	14.8 (50)	102	50 / 50	14.7 (50)	101	50 / 50	14.3 (50)	99	50 / 50
22	14.5 (50)	50 / 50	14.9 (50)	103	50 / 50	15.2 (50)	105	50 / 50	14.6 (50)	101	50 / 50
26	14.8 (50)	50 / 50	15.2 (50)	103	50 / 50	15.3 (50)	103	50 / 50	15.0 (50)	101	50 / 50
30	15.0 (50)	50 / 50	15.3 (50)	102	50 / 50	15.4 (50)	103	50 / 50	15.0 (49)	100	50 / 50
34	15.3 (49)	50 / 50	15.5 (50)	101	50 / 50	15.6 (50)	102	50 / 50	15.6 (50)	102	50 / 50
38	15.1 (50)	50 / 50	15.6 (50)	103	50 / 50	15.6 (50)	103	50 / 50	15.4 (46)	102	50 / 50
42	15.2 (49)	50 / 50	15.5 (50)	102	50 / 50	15.5 (50)	102	50 / 50	15.3 (49)	101	50 / 50
46	15.4 (49)	50 / 50	15.6 (49)	101	50 / 50	15.9 (49)	103	49 / 50	15.6 (48)	101	50 / 50
50	15.5 (50)	50 / 50	15.9 (50)	103	50 / 50	15.8 (49)	102	49 / 50	15.6 (48)	101	50 / 50
54	15.5 (50)	50 / 50	15.9 (50)	103	50 / 50	15.9 (49)	103	49 / 50	15.7 (46)	101	49 / 50
58	15.7 (50)	50 / 50	15.7 (49)	100	50 / 50	16.0 (49)	102	49 / 50	15.6 (45)	99	49 / 50
62	15.9 (49)	49 / 50	16.0 (50)	101	50 / 50	16.3 (49)	103	49 / 50	15.6 (45)	98	49 / 50
66	15.5 (49)	49 / 50	15.6 (49)	101	50 / 50	16.0 (49)	103	49 / 50	15.1 (45)	97	49 / 50
70	15.7 (49)	49 / 50	15.8 (50)	101	50 / 50	16.3 (49)	104	49 / 50	15.2 (45)	97	48 / 50
74	15.9 (49)	49 / 50	16.0 (50)	101	50 / 50	16.4 (48)	103	49 / 50	14.5 (41)	91	45 / 50
78	16.3 (49)	49 / 50	16.1 (48)	99	49 / 50	16.5 (48)	101	48 / 50	14.5 (35)	89	37 / 50
82	15.7 (46)	49 / 50	15.6 (47)	99	48 / 50	15.7 (45)	100	48 / 50	13.3 (21)	85	25 / 50
86	15.4 (49)	49 / 50	15.5 (48)	101	48 / 50	16.0 (47)	104	48 / 50	14.1 (18)	92	18 / 50
90	15.9 (41)	45 / 50	16.1 (45)	101	46 / 50	15.8 (43)	99	45 / 50	13.4 (6)	84	10 / 50
94	15.2 (37)	43 / 50	15.5 (43)	102	45 / 50	15.4 (42)	101	45 / 50	11.7 (7)	77	7 / 50
98	15.4 (37)	42 / 50	15.2 (41)	99	44 / 50	15.4 (36)	100	44 / 50	13.0 (2)	84	2 / 50
102	15.1 (36)	40 / 50	14.7 (37)	97	40 / 50	15.4 (34)	102	41 / 50	7.6 (1)	50	1 / 50
104	14.8 (37)	40 / 50	15.4 (38)	104	40 / 50	16.3 (35)	110	39 / 50	－ (－)	－	0 / 50

< > : No. of effective animals, ( ) : No. of measured animals, Av. FC. : Averaged food consumption (Unit : g).

TABLE 4 FOOD CONSUMPTION CHANGES OF FEMALE RATS IN THE 2-YEAR FEED STUDY OF 1-CHLORO-2-NITROBENZENE

Week on Study	Control		80 ppm			400 ppm			2000 ppm		
	Av. FC.	No. of Surviv. <50>	Av. FC.	% of cont.	No. of Surviv. <50>	Av. FC.	% of cont.	No. of Surviv. <50>	Av. FC.	% of cont.	No. of Surviv. <50>
1	9.5 (50)	50 / 50	9.3 (50)	98	50 / 50	9.2 (50)	97	50 / 50	7.5 (50)	79	50 / 50
2	9.4 (50)	50 / 50	9.3 (50)	99	50 / 50	9.5 (50)	101	50 / 50	9.3 (50)	99	50 / 50
3	9.6 (50)	50 / 50	9.4 (50)	98	50 / 50	9.6 (50)	100	50 / 50	9.4 (50)	98	50 / 50
4	9.6 (50)	50 / 50	9.4 (50)	98	50 / 50	9.7 (50)	101	50 / 50	9.4 (50)	98	50 / 50
5	9.8 (50)	50 / 50	9.4 (50)	96	50 / 50	9.9 (50)	101	50 / 50	9.7 (50)	99	50 / 50
6	9.2 (50)	50 / 50	8.9 (50)	97	50 / 50	9.1 (50)	99	50 / 50	9.1 (50)	99	50 / 50
7	9.4 (50)	50 / 50	8.9 (50)	95	50 / 50	9.0 (50)	96	50 / 50	9.1 (50)	97	50 / 50
8	9.3 (50)	50 / 50	8.8 (50)	95	50 / 50	9.0 (50)	97	50 / 50	9.0 (50)	97	50 / 50
9	9.4 (50)	50 / 50	8.8 (50)	94	50 / 50	9.0 (50)	96	50 / 50	9.0 (50)	96	50 / 50
10	9.4 (50)	50 / 50	8.8 (50)	94	50 / 50	8.9 (50)	95	50 / 50	8.8 (50)	94	50 / 50
11	9.7 (50)	50 / 50	9.1 (50)	94	50 / 50	9.1 (50)	94	50 / 50	9.1 (50)	94	50 / 50
12	9.5 (50)	50 / 50	9.0 (50)	95	50 / 50	8.9 (50)	94	50 / 50	8.9 (50)	94	50 / 50
13	9.5 (50)	50 / 50	8.9 (50)	94	50 / 50	9.1 (50)	96	50 / 50	9.1 (50)	96	50 / 50
14	9.3 (50)	50 / 50	8.8 (50)	95	50 / 50	9.1 (50)	98	50 / 50	9.0 (50)	97	50 / 50
18	9.5 (50)	50 / 50	9.1 (50)	96	50 / 50	9.1 (50)	96	50 / 50	9.1 (50)	96	50 / 50
22	9.8 (50)	50 / 50	9.2 (50)	94	50 / 50	9.5 (50)	97	50 / 50	9.4 (50)	96	50 / 50
26	10.1 (50)	50 / 50	9.4 (50)	93	50 / 50	9.6 (50)	95	50 / 50	9.5 (50)	94	50 / 50
30	9.8 (50)	50 / 50	9.5 (50)	97	50 / 50	9.7 (50)	99	50 / 50	9.5 (50)	97	50 / 50
34	10.4 (50)	50 / 50	9.7 (50)	93	50 / 50	10.1 (50)	97	50 / 50	9.8 (50)	94	50 / 50
38	10.3 (50)	50 / 50	9.7 (50)	94	50 / 50	10.4 (50)	101	50 / 50	9.9 (50)	96	50 / 50
42	10.5 (50)	50 / 50	9.9 (50)	94	50 / 50	10.2 (50)	97	50 / 50	10.0 (50)	95	50 / 50
46	10.7 (50)	50 / 50	10.4 (50)	97	50 / 50	10.5 (50)	98	50 / 50	10.2 (50)	95	50 / 50
50	11.0 (50)	50 / 50	10.7 (50)	97	50 / 50	10.8 (50)	98	50 / 50	10.4 (50)	95	50 / 50
54	11.2 (50)	50 / 50	10.9 (50)	97	50 / 50	11.1 (50)	99	50 / 50	10.7 (50)	96	50 / 50
58	11.6 (50)	50 / 50	11.2 (50)	97	50 / 50	11.4 (50)	98	50 / 50	10.9 (50)	94	50 / 50
62	11.9 (50)	50 / 50	11.6 (50)	97	50 / 50	11.8 (50)	99	50 / 50	11.4 (49)	96	49 / 50
66	11.7 (50)	50 / 50	11.5 (50)	98	50 / 50	11.9 (50)	102	50 / 50	11.5 (49)	98	49 / 50
70	11.7 (49)	49 / 50	11.9 (50)	102	50 / 50	11.9 (49)	102	50 / 50	11.6 (48)	99	48 / 50
74	12.9 (49)	49 / 50	12.9 (50)	100	50 / 50	12.5 (49)	97	49 / 50	12.1 (48)	94	48 / 50
78	12.9 (48)	48 / 50	13.2 (50)	102	50 / 50	13.0 (49)	101	49 / 50	12.7 (48)	98	48 / 50
82	12.4 (48)	48 / 50	12.8 (50)	103	50 / 50	12.4 (49)	100	49 / 50	12.3 (48)	99	48 / 50
86	12.8 (47)	47 / 50	12.9 (50)	101	50 / 50	13.0 (49)	102	49 / 50	12.8 (48)	100	48 / 50
90	13.2 (45)	45 / 50	13.3 (50)	101	50 / 50	13.1 (49)	99	49 / 50	13.0 (48)	98	48 / 50
94	12.5 (44)	44 / 50	12.5 (50)	100	50 / 50	12.4 (49)	99	49 / 50	12.8 (47)	102	47 / 50
98	12.5 (43)	43 / 50	12.6 (48)	101	48 / 50	12.7 (47)	102	47 / 50	12.8 (44)	102	44 / 50
102	12.6 (41)	41 / 50	12.1 (44)	96	44 / 50	12.9 (45)	102	46 / 50	13.0 (40)	103	40 / 50
104	12.8 (41)	41 / 50	13.0 (42)	102	42 / 50	12.9 (45)	101	45 / 50	13.3 (39)	104	39 / 50

< > : No. of effective animals, ( ) : No. of measured animals, Av. FC. : Averaged food consumption (Unit : g).

TABLE 5 HEMATOLOGY OF MALE RATS IN THE 2-YEAR FEED STUDY OF 1-CHLORO-2-NITROBENZENE

Group Name	Control	80 ppm	400 ppm	2000 ppm
No. of examined animals	39	40	39	0
RED BLOOD CELL ($10^6/\mu$ L)	7.44 ± 1.94	8.30 ± 1.24 *	7.42 ± 1.18	—
HEMOGLOBIN (g/dL)	12.9 ± 3.5	14.0 ± 2.1	12.3 ± 1.8 **	—
HEMATOCRIT (%)	37.1 ± 8.6	40.4 ± 4.8	35.5 ± 4.8 **	—
MCV (fL)	51.8 ± 10.0	49.2 ± 5.5 *	48.1 ± 2.5 **	—
MCH (pg)	17.6 ± 2.8	16.9 ± 1.4 *	16.6 ± 1.0 **	—
PLATELET ($10^3/\mu$ L)	786 ± 274	833 ± 277	949 ± 154 **	—
METHEMOGLOBIN (%)	0.3 ± 0.1	0.3 ± 0.1	0.4 ± 0.2 **	—

Mean ± S.D.
Significant difference: * : p≦0.05 ** : p≦0.01 Test of Dunnett

TABLE 6 HEMATOLOGY OF FEMALE RATS IN THE 2-YEAR FEED STUDY OF 1-CHLORO-2-NITROBENZENE

Group Name	Control	80 ppm	400 ppm	2000 ppm
No. of examined animals	41	42	45	38
RED BLOOD CELL ($10^6/\mu$ L)	7.82 ± 0.86	7.61 ± 1.48	7.80 ± 0.55	6.71 ± 0.57 **
HEMOGLOBIN (g/dL)	14.7 ± 1.6	14.2 ± 2.8	14.1 ± 1.2 **	12.2 ± 0.9 **
HEMATOCRIT (%)	40.7 ± 3.6	39.7 ± 6.1	39.8 ± 2.9	35.4 ± 2.4 **
MCV (fL)	52.3 ± 2.9	53.8 ± 9.4	51.0 ± 1.7 **	52.9 ± 2.3
MCH (pg)	18.9 ± 1.0	18.8 ± 1.3	18.1 ± 1.0 **	18.2 ± 0.7 **
MCHC (g/dL)	36.1 ± 1.4	35.4 ± 3.2	35.4 ± 1.1 **	34.4 ± 0.6 **
PLATELET ($10^3/\mu$ L)	612 ± 142	644 ± 154	725 ± 123 **	730 ± 115 **
RETICULOCYTE (%)	3.3 ± 2.9	4.6 ± 8.1	3.1 ± 1.4	5.7 ± 1.4 **
METHEMOGLOBIN (%)	0.3 ± 0.1	0.3 ± 0.1	0.4 ± 0.2 **	1.3 ± 0.4 **
WBC ($10^3/\mu$ L)	3.63 ± 2.09	7.90 ± 22.29	3.30 ± 1.33	6.15 ± 15.18 *
Differential WBC (%)				
N-SEG	40 ± 10	38 ± 10	42 ± 9	46 ± 11 *

Mean ± S.D.
Significant difference: * : p≦0.05 ** : p≦0.01 Test of Dunnett

TABLE 7 BIOCHEMISTRY OF MALE RATS IN THE 2-YEAR FEED STUDY OF 1-CHLORO-2-NITROBENZENE

Group Name	Control	80 ppm		400 ppm		2000 ppm
No. of examined animals	39	40		39		0
ALBUMIN (g/dL)	2.9 ± 0.2	2.9 ± 0.2		2.7 ± 0.3	**	—
A/G RATIO	0.8 ± 0.1	0.8 ± 0.1		0.7 ± 0.1	**	—
T-CHOLESTEROL (mg/dL)	159 ± 43	191 ± 42	**	277 ± 52	**	—
TRIGLYCERIDE (mg/dL)	89 ± 63	93 ± 51		207 ± 88	**	—
PHOSPHOLIPID (mg/dL)	235 ± 68	261 ± 57		377 ± 76	**	—
LDH (IU/L)	254 ± 296	176 ± 96		166 ± 90	*	—
G-GTP (IU/L)	6 ± 3	13 ± 6	**	35 ± 23	**	—
UREA NITROGEN (mg/dL)	18.0 ± 4.1	19.4 ± 3.2		43.9 ± 31.7	**	—
CREATININE (mg/dL)	0.6 ± 0.1	0.6 ± 0.1		0.9 ± 0.3	**	—
CHLORIDE (mEq/L)	105 ± 2	104 ± 2		103 ± 2	**	—
CALCIUM (mg/dL)	10.4 ± 0.4	10.5 ± 0.3		11.2 ± 0.6	**	—
INORGANIC PHOSPHORUS (mg/dL)	4.2 ± 0.7	4.3 ± 0.5		5.7 ± 2.2	**	—

Mean ± S.D.
Significant difference: * : p≦0.05 ** : p≦0.01 Test of Dunnett

TABLE 8 BIOCHEMISTRY OF FEMALE RATS IN THE 2-YEAR FEED STUDY OF 1-CHLORO-2-NITROBENZENE

Group Name	Control	80 ppm	400 ppm		2000 ppm	
No. of examined animals	41	42	45		38	
ALBUMIN (g/dL)	3.6 ± 0.4	3.6 ± 0.4	3.6 ± 0.3		3.2 ± 0.3	**
A/G RATIO	1.1 ± 0.1	1.1 ± 0.1	1.0 ± 0.1		0.9 ± 0.1	**
T-BILIRUBIN (mg/dL)	0.15 ± 0.05	0.29 ± 0.96	0.14 ± 0.02		0.21 ± 0.03	**
GLUCOSE (mg/dL)	148 ± 20	155 ± 25	160 ± 18	*	158 ± 14	
T-CHOLESTEROL (mg/dL)	126 ± 28	146 ± 40	188 ± 48	**	267 ± 61	**
TRIGLYCERIDE (mg/dL)	66 ± 65	70 ± 54	77 ± 44		211 ± 107	**
PHOSPHOLIPID (mg/dL)	223 ± 49	256 ± 101	292 ± 70	**	414 ± 93	**
ALT (IU/L)	67 ± 70	73 ± 89	67 ± 28		134 ± 117	**
LDH (IU/L)	268 ± 93	285 ± 229	200 ± 70	**	189 ± 73	**
ALP (IU/L)	139 ± 78	167 ± 346	110 ± 64	**	161 ± 35	**
G-GTP (IU/L)	2 ± 2	3 ± 3	6 ± 3	**	77 ± 25	**
UREA NITROGEN (mg/dL)	16.1 ± 2.7	17.7 ± 4.8	18.0 ± 4.2	*	28.8 ± 12.7	**
CREATININE (mg/dL)	0.5 ± 0.1	0.5 ± 0.1	0.5 ± 0.1		0.6 ± 0.2	*
SODIUM (mEq/L)	141 ± 2	140 ± 2	140 ± 2		139 ± 2	*
CHLORIDE (mEq/L)	103 ± 2	103 ± 2	103 ± 2		102 ± 2	**
CALCIUM (mg/dL)	10.7 ± 0.9	10.5 ± 0.3	10.8 ± 0.4		11.2 ± 0.4	**
INORGANIC PHOSPHORUS (mg/dL)	4.1 ± 0.7	4.0 ± 0.7	4.0 ± 0.6		5.0 ± 1.3	**

Mean ± S.D.
Significant difference: * : p≦0.05 ** : p≦0.01 Test of Dunnett

TABLE 9 URINALYSIS OF MALE RATS IN THE 2-YEAR FEED STUDY OF 1-CHLORO-2-NITROBENZENE

Group Name		Control	80 ppm	400 ppm	2000 ppm
No. of examined animals		40	40	39	0
	Grade				
pH	5.0	0	0	0	−
	6.0	3	0	1	−
	6.5	0	2	7	−
	7.0	7	5	10	−
	7.5	21	21	19	−
	8.0	9	12	2	−
	8.5	0	0	0	−
	Chi square test			*	

Significant difference: * : p≦0.05 ** : p≦0.01

TABLE 10 URINALYSIS OF FEMALE RATS IN THE 2-YEAR FEED STUDY OF 1-CHLORO-2-NITROBENZENE

Group Name		Control	80 ppm	400 ppm	2000 ppm
No. of examined animals		41	42	46	40
	Grade				
pH	5.0	0	0	0	0
	6.0	1	3	1	1
	6.5	4	4	3	9
	7.0	9	11	7	16
	7.5	7	5	15	9
	8.0	17	18	19	5
	8.5	3	1	1	0
	Chi square test				*
Protein	−	0	0	0	0
	±	5	1	0	0
	+	12	12	2	0
	2+	14	14	9	1
	3+	7	11	24	23
	4+	3	4	11	16
	Chi square test			**	**
Ketone body	−	12	8	14	36
	±	29	34	29	4
	+	0	0	2	0
	2+	0	0	0	0
	3+	0	0	0	0
	4+	0	0	1	0
	Chi square test				**
Bilirubin	−	41	42	41	21
	+	0	0	5	19
	2+	0	0	0	0
	3+	0	0	0	0
	Chi square test			*	**

Significant difference: * : p≦0.05 ** : p≦0.01

TABLE 11 ORGAN WEIGHTS OF MALE RATS IN THE 2-YEAR FEED STUDY OF 1-CHLORO-2-NITROBENZENE

Group Name	Control	80 ppm		400 ppm		2000 ppm
No. of examined animals	40	40		39		0
Body weight (g)	376 ± 47	375 ± 26		334 ± 27	**	—
Adrenals (g)	0.068 ± 0.013	0.069 ± 0.035		0.066 ± 0.009		—
Adrenals (%)	0.019 ± 0.007	0.019 ± 0.010		0.020 ± 0.004	**	—
Heart (g)	1.256 ± 0.133	1.239 ± 0.164		1.186 ± 0.090		—
Heart (%)	0.342 ± 0.081	0.332 ± 0.052		0.357 ± 0.040	**	—
Lungs (g)	1.480 ± 0.330	1.430 ± 0.215		1.345 ± 0.118	*	—
Lungs (%)	0.409 ± 0.160	0.383 ± 0.066		0.404 ± 0.041	**	—
Kidneys (g)	2.846 ± 0.488	2.867 ± 0.273		3.175 ± 0.380	**	—
Kidneys (%)	0.782 ± 0.273	0.769 ± 0.102		0.961 ± 0.180	**	—
Spleen (g)	1.875 ± 1.944	1.484 ± 2.403		1.023 ± 0.288		—
Spleen (%)	0.551 ± 0.684	0.393 ± 0.605		0.306 ± 0.085		—
Liver (g)	10.985 ± 1.234	11.916 ± 1.482	**	14.722 ± 1.500	**	—
Liver (%)	2.990 ± 0.672	3.184 ± 0.408	*	4.424 ± 0.471	**	—
Brain (g)	2.111 ± 0.053	2.124 ± 0.043		2.129 ± 0.057		—
Brain (%)	0.573 ± 0.095	0.569 ± 0.042		0.642 ± 0.056	**	—

Mean ± S.D.
Significant difference: * : $p \leqq 0.05$ ** : $p \leqq 0.01$ Test of Dunnett

TABLE 12 ORGAN WEIGHTS OF FEMALE RATS IN THE 2-YEAR FEED STUDY OF 1-CHLORO-2-NITROBENZENE

Group Name	Control	80 ppm	400 ppm	2000 ppm
No. of examined animals	41	42	45	39
Body weight (g)	251 ± 30	252 ± 33	242 ± 29	201 ± 21 **
Adrenals (g)	0.069 ± 0.009	0.068 ± 0.008	0.070 ± 0.034	0.058 ± 0.010 **
Adrenals (%)	0.028 ± 0.005	0.028 ± 0.005	0.029 ± 0.012	0.029 ± 0.005
Ovaries (g)	0.143 ± 0.063	0.274 ± 0.482	0.126 ± 0.017	0.193 ± 0.321
Ovaries (%)	0.057 ± 0.024	0.106 ± 0.167	0.053 ± 0.011	0.097 ± 0.160 **
Heart (g)	0.868 ± 0.082	0.895 ± 0.094	0.875 ± 0.076	0.866 ± 0.065
Heart (%)	0.349 ± 0.035	0.362 ± 0.070	0.366 ± 0.053	0.435 ± 0.051 **
Lungs (g)	0.993 ± 0.196	0.985 ± 0.116	0.959 ± 0.133	0.937 ± 0.081
Lungs (%)	0.400 ± 0.087	0.400 ± 0.091	0.401 ± 0.077	0.471 ± 0.064 **
Kidneys (g)	1.753 ± 0.151	1.776 ± 0.153	1.889 ± 0.216 *	2.503 ± 0.292 **
Kidneys (%)	0.705 ± 0.071	0.717 ± 0.116	0.785 ± 0.088 **	1.257 ± 0.187 **
Spleen (g)	0.820 ± 0.962	0.993 ± 1.613	0.614 ± 0.183	1.040 ± 0.308 **
Spleen (%)	0.324 ± 0.350	0.445 ± 0.925	0.255 ± 0.079	0.522 ± 0.159 **
Liver (g)	6.621 ± 1.325	7.355 ± 1.056 *	8.662 ± 1.468 **	14.596 ± 1.258 **
Liver (%)	2.641 ± 0.416	2.972 ± 0.664	3.571 ± 0.376 **	7.314 ± 0.845 **
Brain (g)	1.910 ± 0.052	1.911 ± 0.053	1.918 ± 0.041	1.909 ± 0.050
Brain (%)	0.772 ± 0.089	0.773 ± 0.111	0.804 ± 0.113	0.959 ± 0.095 **

Mean ± S.D.
Significant difference: * : $p \leqq 0.05$ ** : $p \leqq 0.01$ Test of Dunnett

TABLE 13 INCIDENCES OF SELECTED NEOPLASTIC LESIONS OF MALE RATS IN THE 2-YEAR FEED STUDY OF 1-CHLORO-2-NITROBENZENE

Group Name	Control	80 ppm	400 ppm	2000 ppm	Peto	Cochran-
Number of examined animals	50	50	50	50	test	Armitage test
liver	<50>	<50>	<50>	<50>		
hepatocellular adenoma	2 (4 %)	3 (6 %)	7 (14 %)	1 (2 %)	↑	
hepatocellular carcinoma	0 (0 %)	0 (0 %)	3 (6 %)	1 (2 %)	↑ ↑	↑
kidney	<50>	<50>	<50>	<50>		
renal cell adenoma	0 (0 %)	1 (2 %)	0 (0 %)	1 (2 %)		
renal cell carcinoma	0 (0 %)	0 (0 %)	0 (0 %)	4 (8 %)		
testis	<50>	<50>	<50>	<50>		
interstitial cell tumor	38 (76 %)	42 (84 %)	45 (90 %)	33 (66 %)	↑ ↑	
spleen	<50>	<50>	<50>	<50>		
mononuclear cell leukemia	10 (20 %)	4 (8 %)	2 (4 %) *	0 (0 %)		↓
pituitary gland	<50>	<50>	<50>	<50>		
adenoma	18 (36 %)	9 (18 %) *	11 (22 %)	1 (2 %)		
thyroid	<50>	<50>	<50>	<49>		
C-cell adenoma	7 (14 %)	4 (8 %)	1 (2 %) *	1 (2 %)		↓

Significant difference * : p≦0.05 ** : p≦0.01 Fisher's exact test for neoplastic lesion
↑(↓) : p≦0.05 ↑ ↑(↓ ↓) : p≦0.01 Peto or Cochran-Armitage test for neoplastic lesion
< > : Number of animals examined at the site
Statistical analysis is not applied to the data of 2000 ppm group, since they exceeded the MTD.

TABLE 14 INCIDENCES OF SELECTED NEOPLASTIC LESIONS OF FEMALE RATS IN THE 2-YEAR FEED STUDY OF 1-CHLORO-2-NITROBENZENE

Group Name	Control	80 ppm	400 ppm	2000 ppm	Peto	Cochran-
Number of examined animals	50	50	50	50	test	Armitage test
liver	<50>	<50>	<50>	<50>		
hepatocellular adenoma	0 (0 %)	0 (0 %)	2 (4 %)	20 (40 %) **	↑ ↑	↑ ↑
hepatocellular carcinoma	0 (0 %)	0 (0 %)	0 (0 %)	4 (8 %)	↑ ↑	↑ ↑
kidney	<50>	<50>	<50>	<50>		
renal cell adenoma	0 (0 %)	0 (0 %)	0 (0 %)	2 (4 %)	↑	
clitoral gland	<50>	<50>	<50>	<50>		
adenoma	2 (4 %)	1 (2 %)	1 (2 %)	3 (6 %)	↑	
uterus	<50>	<50>	<50>	<50>		
endometrial stromal polyp	11 (22 %)	10 (20 %)	12 (24 %)	4 (8 %) *		

Significant difference * : p≦0.05 ** : p≦0.01 Fisher's exact test for neoplastic lesion
↑(↓) : p≦0.05 ↑ ↑(↓ ↓) : p≦0.01 Peto or Cochran-Armitage test for neoplastic lesion
< > : Number of animals examined at the site

TABLE 15 INCIDENCES OF SELECTED NON-NEOPLASTIC LESIONS OF MALE RATS IN THE 2-YEAR FEED STUDY OF 1-CHLORO-2-NITROBENZENE

Group Name	Control				80 ppm				400 ppm				2000 ppm			
Number of examined animals	50				50				50				50			
Grade of non-neoplastic lesion	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
nasal cavity	<50>				<50>				<50>				<50>			
eosinophilic change:olfactory epithelium	13	17	4	0	18	15	2	0	14	11	0	0	0	0	0	0
inflammation:foreign body	14	6	0	0	13	10	0	0	13	5	0	0	6	1	0	0
inflammation:respiratory epithelium	0	0	0	0	0	0	0	0	1	2	0	0	16	22	2	0
respiratory metaplasia:gland	30	7	0	0	35	1	0	0	30	0	0	0 *	31	3	0	0
lung	<50>				<50>				<50>				<50>			
uremic pneumonitis	0	0	0	0	0	0	0	0	0	0	0	0	13	0	0	0
spleen	<50>				<50>				<50>				<50>			
angiectasis	0	0	0	0	0	0	0	0	0	0	0	0	9	7	0	0
deposit of hemosiderin	23	1	0	0	27	2	0	0	32	7	0	0 **	15	28	0	0
engorgement of erythrocyte	0	0	0	0	3	0	0	0	11	0	0	0 **	2	1	0	0
capsule hyperplasia	0	0	0	0	0	0	0	0	0	0	0	0	49	0	0	0
heart	<50>				<50>				<50>				<50>			
myocardial fibrosis	32	4	0	0	34	1	0	0	32	5	0	0	12	35	0	0
artery/aorta	<50>				<50>				<50>				<50>			
mineralization	0	0	0	0	0	0	0	0	1	0	0	0	32	0	0	0
stomach	<50>				<50>				<50>				<50>			
mineralization:glandular stomach	0	0	0	0	0	0	0	0	3	0	0	0	27	0	0	0
liver	<50>				<50>				<50>				<50>			
necrosis:single cell	0	0	0	0	0	0	0	0	0	0	0	0	17	1	0	0
fatty change	0	0	0	0	0	1	0	0	0	0	0	0	16	0	0	0
hydropic change:central	0	0	0	0	0	0	0	0	0	0	0	0	45	3	0	0
acidophilic cell focus	0	2	0	0	1	2	0	0	4	18	2	0 **	3	4	0	0
basophilic cell focus	5	1	0	0	3	4	0	0	1	16	3	0 **	1	0	0	0
spongiosis hepatis	3	1	0	0	7	1	0	0	6	27	2	0 **	0	0	0	0
bile duct hyperplasia	0	49	0	0	0	47	0	0	19	24	0	0 **	0	0	0	0
deposit of brown pigment	0	0	0	0	0	0	0	0	0	0	0	0	50	0	0	0
pancreas	<50>				<50>				<50>				<50>			
atrophy	9	4	2	0	9	6	2	0	9	2	0	0	0	1	0	0

Grade 1: Slight 2 : Moderate 3 : Marked 4 :Severe
< > : Number of animals examined at the site
Significant difference ; * : $p \leqq 0.05$ ** : $p \leqq 0.01$ Test of Chi Square
Statistical analysis is not applied to the data of 2000 ppm group, since they exceeded the MTD.

TABLE 15 INCIDENCES OF SELECTED NON-NEOPLASTIC LESIONS OF MALE RATS IN THE 2-YEAR FEED STUDY OF 1-CHLORO-2-NITROBENZENE (Continued)

Group Name	Control				80 ppm				400 ppm				2000 ppm			
Number of examined animals	50				50				50				50			
Grade of non-neoplastic lesion	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
kidney	<50>				<50>				<50>				<50>			
cyst	1	0	0	0	0	1	0	0	4	4	0	0 *	1	19	0	0
chronic nephropathy	20	20	3	0	6	37	4	1 **	0	6	28	15 **	0	1	0	49
mineralization:cortex	0	0	0	0	0	0	0	0	0	2	0	0	2	42	0	0
urothelial hyperplasia:pelvis	0	0	0	0	1	0	0	0	7	25	0	0 **	5	43	0	0
atypical tubule hyperplasia	0	0	0	0	1	0	0	0	1	0	0	0	2	4	0	0
deposit of brown pigment:proximal tubule	0	0	0	0	0	0	0	0	41	1	0	0 **	0	44	5	0
thyroid	<50>				<50>				<50>				<50>			
C-cell hyperplasia	2	1	0	0	7	5	0	0 *	5	1	0	0	0	0	0	0
parathyroid	<50>				<50>				<50>				<50>			
hyperplasia	0	0	0	0	0	0	0	0	3	0	0	0	27	0	0	0
testis	<50>				<50>				<50>				<50>			
hyperplasia	16	0	0	0	21	0	0	0	27	0	0	0 *	24	0	0	0
prostate	<50>				<50>				<50>				<50>			
hyperplasia	3	4	0	0	5	4	0	0	2	2	0	0	0	0	0	0
eye	<50>				<50>				<50>				<50>			
retinal atrophy	19	16	1	0	14	26	3	0	17	23	2	0	8	8	1	0
keratitis	0	0	0	0	0	0	0	0	1	0	0	0	12	16	5	0

Grade 1: Slight 2 : Moderate 3 : Marked 4 :Severe
< > : Number of animals examined at the site
Significant difference ; * : $p \leqq 0.05$ ** : $p \leqq 0.01$ Test of Chi Square
Statistical analysis is not applied to the data of 2000 ppm group, since they exceeded the MTD.

TABLE 16 INCIDENCES OF SELECTED NON-NEOPLASTIC LESIONS OF FEMALE RATS IN THE 2-YEAR FEED STUDY OF 1-CHLORO-2-NITROBENZENE

Group Name	Control				80 ppm				400 ppm				2000 ppm			
Number of examined animals	50				50				50				50			
Grade of non-neoplastic lesion	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
nasal cavity	<50>				<50>				<50>				<50>			
eosinophilic change:olfactory epithelium	1	31	18	0	3	25	21	0	6	33	10	0	6	0	0	0 **
eosinophilic change:respiratory epithelium	25	0	0	0	32	0	0	0	27	0	0	0	3	0	0	0 **
spleen	<50>				<50>				<50>				<50>			
angiectasis	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0
deposit of hemosiderin	24	9	0	0	27	14	0	0	23	23	0	0 **	33	12	0	0 *
increased extramedullary hematopoiesis	10	5	0	0	6	3	0	0	14	2	0	0	22	6	0	0 *
engorgement of erythrocyte	0	0	0	0	1	0	0	0	5	0	0	0	26	1	0	0 **
capsule hyperplasia	0	0	0	0	0	0	0	0	0	0	0	0	46	0	0	0 **
liver	<50>				<50>				<50>				<50>			
necrosis:single cell	0	0	0	0	0	0	0	0	1	0	0	0	5	1	0	0 *
hydropic change:central	0	0	0	0	0	0	0	0	0	0	0	0	38	3	0	0 **
granulation	12	5	4	0	16	4	2	0	7	3	0	0	4	1	0	0 **
clear cell focus	1	1	0	0	1	0	0	0	2	0	0	0	1	7	3	0 *
acidophilic cell focus	0	0	0	0	0	0	0	0	4	4	0	0 *	1	29	6	0 **
basophilic cell focus	24	5	0	0	22	0	0	0 *	9	0	0	0 **	5	0	0	0 **
bile duct hyperplasia	18	9	0	0	19	8	0	0	36	4	0	0 **	1	0	0	0 **
deposit of brown pigment	0	0	0	0	0	0	0	0	0	0	0	0	43	1	0	0 **
kidney	<50>				<50>				<50>				<50>			
chronic nephropathy	15	5	0	0	22	11	0	0 *	27	16	2	0 **	2	14	31	2 **
urothelial hyperplasia:pelvis	0	0	0	0	0	0	0	0	0	0	0	0	3	4	0	0 *
atypical tubule hyperplasia	0	0	0	0	0	0	0	0	0	0	0	0	4	1	0	0
deposit of brown pigment:proximal tubule	0	0	0	0	0	0	0	0	48	0	0	0 **	3	46	0	0 **
thyroid	<50>				<50>				<50>				<50>			
C-cell hyperplasia	6	2	0	0	4	1	0	0	7	1	0	0	1	0	0	0 *
adrenal gland	<50>				<50>				<50>				<50>			
focal fatty change:cortex	6	0	0	0	3	1	0	0	6	0	0	0	0	0	0	0 *

Grade 1: Slight 2 : Moderate 3 : Marked 4 :Severe
< > : Number of animals examined at the site
Significant difference ; * : $p \leqq 0.05$ ** : $p \leqq 0.01$ Test of Chi Square

TABLE 17 HISTORICAL CONTROL DATA OF SELECTED NEOPLASTIC LESIONS IN JAPAN BIOASSAY RESEARCH CENTER : F344/DuCrlCrlj MALE RATS

Organs Tumors	No. of animals examined	No. of animals bearing tumor	Incidence (%)	Min. - Max. (%)
Liver	1949			
Hepatocellular adenoma		34	1.7	0 - 8
Hepatocellular carcinoma		6	0.3	0 - 2
Kidney	1949			
Renal cell adenoma		2	0.1	0 - 2
Renal cell carcinoma		4	0.2	0 - 4
Testis	1948			
Interstitial cell tumor		1659	85.2	56 - 98

39 carcinogenicity studies examined in Japan Bioassay Research Center were used.
Study No. : 0043, 0059, 0061, 0063, 0065, 0067, 0095, 0104, 0115, 0130, 0141, 0158, 0162, 0189, 0205, 0210, 0224, 0242, 0267, 0269, 0278, 0284, 0288, 0294, 0296, 0318, 0328, 0342, 0347, 0365, 0371, 0396, 0399, 0401, 0407, 0417, 0421, 0437, 0448

TABLE 18 HISTORICAL CONTROL DATA OF SELECTED NEOPLASTIC LESIONS IN JAPAN BIOASSAY RESEARCH CENTER : F344/DuCrlCrlj FEMALE RATS

Organs Tumors	No. of animals examined	No. of animals bearing tumor	Incidence (%)	Min. - Max. (%)
Liver	1797			
Hepatocellular adenoma		21	1.2	0 - 6
Hepatocellular carcinoma		2	0.1	0 - 2
Kidney	1797			
Renal cell adenoma		2	0.1	0 - 2
Clitoral gland	1797			
Adenoma		51	2.8	0 - 8

36 carcinogenicity studies examined in Japan Bioassay Research Center were used.
Study No. : 0043, 0059, 0061, 0063, 0065, 0067, 0095, 0104, 0115, 0130, 0141, 0158, 0162, 0189, 0205, 0210, 0224, 0242, 0267, 0269, 0278, 0284, 0296, 0303, 0318, 0328, 0342, 0347, 0365, 0371, 0399, 0401, 0417, 0421, 0437, 0448

TABLE 19 CAUSE OF DEATH OF RATS IN THE 2-YEAR FEED STUDY OF 1-CHLORO-2-NITROBENZENE

		Male				Female			
Group name		Control	80 ppm	400 ppm	2000 ppm	Control	80 ppm	400 ppm	2000 ppm
Number of dead or moribund animals		10	10	11	50	9	8	5	11
No microscopical confirmation		0	1	1	0	1	0	0	0
Chronic nephropathy		0	0	3	47	0	0	0	0
Arteritis		0	0	0	1	0	0	0	0
Tumor death ：	leukemia	6	1	1	0	2	1	1	1
	subcutis	1	0	0	0	1	0	1	0
	bone marrow	0	1	0	0	0	0	0	0
	thymus	0	0	1	0	0	0	0	0
	oral cavity	0	0	0	0	0	0	0	1
	tongue	0	0	1	0	0	0	0	0
	pancreas	0	0	1	0	0	0	0	0
	kidney	1	0	0	0	0	1	0	0
	urinary bladder	0	0	0	0	0	0	0	1
	pituitary gland	2	3	3	0	2	2	1	0
	adrenal gland	0	0	0	0	0	0	0	1
	ovary	—	—	—	—	0	0	0	1
	uterus	—	—	—	—	3	2	2	2
	mammary gland	0	0	0	0	0	2	0	0
	preputial gland	0	3	0	0	—	—	—	—
	clitoral gland	—	—	—	—	0	0	0	2
	brain	0	0	0	0	0	0	0	1
	peripheral nerves	0	1	0	0	0	0	0	0
	Zymbal gland	0	0	0	0	0	0	0	1
	bone	0	0	0	1	0	0	0	0
	peritoneum	0	0	0	1	0	0	0	0