2-フェノキシエタノールのラットを用いた
経口投与によるがん原性試験（混水試験）報告書

試験番号：0497

TABLES

TABLES

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TABLE 1 SURVIVAL ANIMAL NUMBERS AND BODY WEIGHT CHANGES OF MALE RATS IN THE 2-YEAR DRINKING WATER STUDY OF 2-PHENOXYETHANOL

Week on Study	Control		2500 ppm			5000 ppm			10000 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	157 (50)	50 / 50	156 (50)	99	50 / 50	155 (50)	99	50 / 50	150 (50)	96	50 / 50
2	187 (50)	50 / 50	185 (50)	99	50 / 50	184 (50)	98	50 / 50	176 (50)	94	50 / 50
3	214 (50)	50 / 50	209 (50)	98	50 / 50	209 (50)	98	50 / 50	200 (50)	93	50 / 50
4	235 (50)	50 / 50	228 (50)	97	50 / 50	228 (50)	97	50 / 50	218 (50)	93	50 / 50
5	249 (50)	50 / 50	243 (50)	98	50 / 50	243 (50)	98	50 / 50	233 (50)	94	50 / 50
6	261 (50)	50 / 50	254 (50)	97	50 / 50	256 (50)	98	50 / 50	246 (50)	94	50 / 50
7	274 (50)	50 / 50	267 (50)	97	50 / 50	269 (50)	98	50 / 50	257 (50)	94	50 / 50
8	283 (50)	50 / 50	275 (50)	97	50 / 50	279 (50)	99	50 / 50	265 (50)	94	50 / 50
9	292 (50)	50 / 50	286 (50)	98	50 / 50	289 (50)	99	50 / 50	274 (50)	94	50 / 50
10	299 (50)	50 / 50	293 (50)	98	50 / 50	296 (50)	99	50 / 50	279 (50)	93	50 / 50
11	305 (50)	50 / 50	300 (50)	98	50 / 50	303 (50)	99	50 / 50	288 (50)	94	50 / 50
12	313 (50)	50 / 50	307 (50)	98	50 / 50	309 (50)	99	50 / 50	293 (50)	94	50 / 50
13	319 (50)	50 / 50	313 (50)	98	50 / 50	316 (50)	99	50 / 50	299 (50)	94	50 / 50
17	334 (50)	50 / 50	328 (50)	98	50 / 50	332 (50)	99	50 / 50	314 (50)	94	50 / 50
21	350 (50)	50 / 50	345 (50)	99	50 / 50	349 (50)	100	50 / 50	328 (50)	94	50 / 50
25	357 (50)	50 / 50	354 (50)	99	50 / 50	356 (50)	100	50 / 50	336 (50)	94	50 / 50
29	367 (50)	50 / 50	365 (50)	99	50 / 50	368 (50)	100	50 / 50	348 (50)	95	50 / 50
33	374 (50)	50 / 50	373 (50)	100	50 / 50	376 (50)	101	50 / 50	353 (50)	94	50 / 50
37	381 (50)	50 / 50	379 (50)	99	50 / 50	385 (50)	101	50 / 50	362 (50)	95	50 / 50
41	385 (50)	50 / 50	384 (50)	100	50 / 50	388 (50)	101	50 / 50	366 (50)	95	50 / 50
45	396 (50)	50 / 50	392 (50)	99	50 / 50	396 (50)	100	50 / 50	374 (50)	94	50 / 50
49	398 (50)	50 / 50	396 (50)	99	50 / 50	401 (50)	101	50 / 50	378 (50)	95	50 / 50
53	406 (50)	50 / 50	402 (50)	99	50 / 50	408 (50)	100	50 / 50	384 (50)	95	50 / 50
57	411 (50)	50 / 50	409 (49)	100	49 / 50	413 (50)	100	50 / 50	390 (50)	95	50 / 50
61	416 (50)	50 / 50	417 (48)	100	48 / 50	420 (50)	101	50 / 50	397 (50)	95	50 / 50
65	423 (50)	50 / 50	423 (48)	100	48 / 50	424 (50)	100	50 / 50	403 (50)	95	50 / 50
69	423 (50)	50 / 50	425 (48)	100	48 / 50	424 (50)	100	50 / 50	404 (49)	96	49 / 50
73	426 (49)	49 / 50	427 (47)	100	47 / 50	428 (49)	100	49 / 50	406 (49)	95	49 / 50
77	429 (49)	49 / 50	432 (47)	101	47 / 50	429 (49)	100	49 / 50	410 (49)	96	49 / 50
78	429 (49)	49 / 50	431 (47)	100	47 / 50	429 (49)	100	49 / 50	409 (49)	95	49 / 50
82	429 (47)	47 / 50	431 (47)	100	47 / 50	428 (49)	100	49 / 50	409 (49)	95	49 / 50
86	419 (43)	43 / 50	431 (45)	103	45 / 50	425 (49)	101	49 / 50	411 (48)	98	48 / 50
90	420 (41)	41 / 50	428 (45)	102	45 / 50	426 (48)	101	48 / 50	407 (48)	97	48 / 50
94	422 (40)	40 / 50	424 (44)	100	44 / 50	421 (48)	100	48 / 50	399 (48)	95	48 / 50
98	423 (38)	38 / 50	418 (44)	99	44 / 50	420 (47)	99	47 / 50	398 (44)	94	44 / 50
102	419 (36)	36 / 50	412 (39)	98	39 / 50	411 (45)	98	45 / 50	397 (40)	95	40 / 50
104	415 (36)	36 / 50	408 (37)	98	37 / 50	405 (45)	98	45 / 50	389 (40)	94	40 / 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 DRINKING WATER STUDY OF 2-PHENOXYETHANOL

Week on Study	Control		2500 ppm			5000 ppm			10000 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	115 (50)	50 / 50	114 (50)	99	50 / 50	114 (50)	99	50 / 50	111 (50)	97	50 / 50
2	129 (50)	50 / 50	126 (50)	98	50 / 50	124 (50)	96	50 / 50	122 (50)	95	50 / 50
3	137 (50)	50 / 50	133 (50)	97	50 / 50	132 (50)	96	50 / 50	129 (50)	94	50 / 50
4	144 (50)	50 / 50	140 (50)	97	50 / 50	138 (50)	96	50 / 50	135 (50)	94	50 / 50
5	151 (50)	50 / 50	145 (50)	96	50 / 50	143 (50)	95	50 / 50	140 (50)	93	50 / 50
6	155 (50)	50 / 50	149 (50)	96	50 / 50	147 (50)	95	50 / 50	144 (50)	93	50 / 50
7	158 (50)	50 / 50	152 (50)	96	50 / 50	151 (50)	96	50 / 50	147 (50)	93	50 / 50
8	162 (50)	50 / 50	154 (50)	95	50 / 50	154 (50)	95	50 / 50	148 (50)	91	50 / 50
9	166 (50)	50 / 50	159 (50)	96	50 / 50	158 (50)	95	50 / 50	152 (50)	92	50 / 50
10	168 (50)	50 / 50	161 (50)	96	50 / 50	161 (50)	96	50 / 50	154 (50)	92	50 / 50
11	171 (50)	50 / 50	164 (50)	96	50 / 50	164 (50)	96	50 / 50	157 (50)	92	50 / 50
12	174 (50)	50 / 50	168 (50)	97	50 / 50	168 (50)	97	50 / 50	160 (50)	92	50 / 50
13	177 (50)	50 / 50	170 (50)	96	50 / 50	169 (50)	95	50 / 50	162 (50)	92	50 / 50
17	183 (50)	50 / 50	175 (50)	96	50 / 50	174 (50)	95	50 / 50	166 (50)	91	50 / 50
21	188 (50)	50 / 50	180 (50)	96	50 / 50	180 (50)	96	50 / 50	170 (50)	90	50 / 50
25	193 (49)	49 / 50	183 (50)	95	50 / 50	184 (50)	95	50 / 50	174 (50)	90	50 / 50
29	199 (49)	49 / 50	190 (50)	95	50 / 50	190 (50)	95	50 / 50	180 (50)	90	50 / 50
33	203 (49)	49 / 50	194 (50)	96	50 / 50	194 (50)	96	50 / 50	183 (50)	90	50 / 50
37	206 (49)	49 / 50	196 (50)	95	50 / 50	196 (50)	95	50 / 50	185 (50)	90	50 / 50
41	211 (49)	49 / 50	201 (50)	95	50 / 50	200 (50)	95	50 / 50	190 (50)	90	50 / 50
45	216 (49)	49 / 50	205 (50)	95	50 / 50	204 (50)	94	50 / 50	193 (50)	89	50 / 50
49	219 (49)	49 / 50	208 (50)	95	50 / 50	208 (50)	95	50 / 50	196 (50)	89	50 / 50
53	224 (49)	49 / 50	213 (50)	95	50 / 50	213 (50)	95	50 / 50	200 (50)	89	50 / 50
57	229 (49)	49 / 50	217 (50)	95	50 / 50	219 (50)	96	50 / 50	205 (50)	90	50 / 50
61	233 (49)	49 / 50	221 (50)	95	50 / 50	223 (50)	96	50 / 50	209 (50)	90	50 / 50
65	241 (49)	49 / 50	228 (50)	95	50 / 50	230 (50)	95	50 / 50	214 (50)	89	50 / 50
69	244 (48)	48 / 50	231 (50)	95	50 / 50	233 (50)	95	50 / 50	216 (50)	89	50 / 50
73	252 (46)	46 / 50	237 (50)	94	50 / 50	239 (50)	95	50 / 50	220 (50)	87	50 / 50
77	257 (45)	45 / 50	241 (48)	94	48 / 50	244 (49)	95	49 / 50	224 (50)	87	50 / 50
78	258 (45)	45 / 50	243 (48)	94	48 / 50	245 (49)	95	49 / 50	225 (50)	87	50 / 50
82	265 (45)	45 / 50	249 (48)	94	48 / 50	250 (48)	94	48 / 50	231 (49)	87	49 / 50
86	271 (45)	45 / 50	255 (48)	94	48 / 50	256 (47)	94	47 / 50	236 (49)	87	49 / 50
90	270 (44)	44 / 50	257 (48)	95	48 / 50	256 (47)	95	47 / 50	238 (48)	88	48 / 50
94	275 (42)	42 / 50	257 (46)	93	46 / 50	260 (46)	95	46 / 50	241 (48)	88	48 / 50
98	277 (42)	42 / 50	261 (45)	94	45 / 50	262 (44)	95	44 / 50	239 (48)	86	48 / 50
102	276 (40)	40 / 50	260 (42)	94	42 / 50	263 (40)	95	40 / 50	240 (44)	87	44 / 50
104	273 (39)	39 / 50	260 (40)	95	40 / 50	261 (38)	96	38 / 50	243 (41)	89	41 / 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 DRINKING WATER STUDY OF 2-PHENOXYETHANOL

Week on Study	Control		2500 ppm			5000 ppm			10000 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	13.8 (50)	50 / 50	13.9 (50)	101	50 / 50	13.6 (50)	99	50 / 50	12.6 (50)	91	50 / 50
2	15.2 (49)	50 / 50	15.3 (50)	101	50 / 50	14.9 (50)	98	50 / 50	13.9 (50)	91	50 / 50
3	- (-)	50 / 50	15.8 (25)	-	50 / 50	15.2 (50)	-	50 / 50	14.6 (50)	-	50 / 50
4	16.2 (50)	50 / 50	15.7 (50)	97	50 / 50	15.6 (50)	96	50 / 50	15.0 (50)	93	50 / 50
5	15.8 (50)	50 / 50	15.6 (50)	99	50 / 50	15.5 (50)	98	50 / 50	14.8 (50)	94	50 / 50
6	15.4 (50)	50 / 50	15.2 (50)	99	50 / 50	15.4 (50)	100	50 / 50	14.6 (50)	95	50 / 50
7	15.4 (50)	50 / 50	15.1 (50)	98	50 / 50	15.4 (50)	100	50 / 50	14.6 (50)	95	50 / 50
8	15.4 (46)	50 / 50	15.1 (41)	98	50 / 50	15.3 (47)	99	50 / 50	14.5 (48)	94	50 / 50
9	15.4 (50)	50 / 50	15.4 (50)	100	50 / 50	15.4 (50)	100	50 / 50	14.3 (50)	93	50 / 50
10	15.1 (50)	50 / 50	14.9 (50)	99	50 / 50	15.1 (50)	100	50 / 50	14.3 (50)	95	50 / 50
11	14.9 (50)	50 / 50	15.0 (50)	101	50 / 50	15.2 (50)	102	50 / 50	14.5 (50)	97	50 / 50
12	14.8 (50)	50 / 50	14.8 (50)	100	50 / 50	14.8 (50)	100	50 / 50	14.3 (50)	97	50 / 50
13	14.7 (50)	50 / 50	14.7 (50)	100	50 / 50	14.8 (50)	101	50 / 50	14.3 (50)	97	50 / 50
17	14.6 (50)	50 / 50	14.6 (50)	100	50 / 50	14.7 (50)	101	50 / 50	14.0 (50)	96	50 / 50
21	15.1 (50)	50 / 50	14.9 (50)	99	50 / 50	15.1 (50)	100	50 / 50	14.4 (50)	95	50 / 50
25	15.9 (50)	50 / 50	15.7 (50)	99	50 / 50	15.9 (50)	100	50 / 50	15.3 (50)	96	50 / 50
29	15.2 (50)	50 / 50	15.3 (50)	101	50 / 50	15.5 (50)	102	50 / 50	14.8 (50)	97	50 / 50
33	15.4 (50)	50 / 50	15.4 (50)	100	50 / 50	15.6 (50)	101	50 / 50	14.7 (50)	95	50 / 50
37	14.9 (50)	50 / 50	15.0 (50)	101	50 / 50	15.3 (50)	103	50 / 50	14.5 (50)	97	50 / 50
41	14.8 (50)	50 / 50	14.9 (50)	101	50 / 50	15.1 (50)	102	50 / 50	14.4 (50)	97	50 / 50
45	15.3 (50)	50 / 50	15.2 (50)	99	50 / 50	15.2 (50)	99	50 / 50	14.8 (50)	97	50 / 50
49	15.5 (50)	50 / 50	15.6 (49)	101	50 / 50	15.9 (50)	103	50 / 50	15.4 (50)	99	50 / 50
53	15.7 (50)	50 / 50	15.7 (50)	100	50 / 50	15.9 (49)	101	50 / 50	15.4 (50)	98	50 / 50
57	16.1 (50)	50 / 50	16.3 (49)	101	49 / 50	16.4 (50)	102	50 / 50	16.1 (50)	100	50 / 50
61	15.9 (50)	50 / 50	16.3 (48)	103	48 / 50	16.1 (50)	101	50 / 50	15.9 (50)	100	50 / 50
65	16.1 (50)	50 / 50	16.4 (48)	102	48 / 50	16.2 (50)	101	50 / 50	16.1 (50)	100	50 / 50
69	15.9 (50)	50 / 50	16.5 (48)	104	48 / 50	16.3 (50)	103	50 / 50	16.0 (49)	101	49 / 50
73	15.9 (49)	49 / 50	16.2 (47)	102	47 / 50	16.1 (49)	101	49 / 50	15.8 (49)	99	49 / 50
77	16.1 (49)	49 / 50	16.6 (47)	103	47 / 50	16.2 (49)	101	49 / 50	16.0 (49)	99	49 / 50
78	16.1 (49)	49 / 50	16.4 (47)	102	47 / 50	16.1 (49)	100	49 / 50	15.7 (49)	98	49 / 50
82	15.4 (46)	47 / 50	15.8 (47)	103	47 / 50	16.0 (49)	104	49 / 50	15.2 (49)	99	49 / 50
86	15.5 (43)	43 / 50	16.4 (45)	106	45 / 50	16.2 (49)	105	49 / 50	16.0 (48)	103	48 / 50
90	15.8 (41)	41 / 50	16.3 (45)	103	45 / 50	16.1 (48)	102	48 / 50	15.4 (48)	97	48 / 50
94	16.1 (40)	40 / 50	16.3 (44)	101	44 / 50	16.0 (48)	99	48 / 50	15.4 (48)	96	48 / 50
98	16.1 (38)	38 / 50	16.1 (44)	100	44 / 50	16.0 (47)	99	47 / 50	15.2 (44)	94	44 / 50
102	16.2 (36)	36 / 50	16.2 (39)	100	39 / 50	15.7 (45)	97	45 / 50	15.4 (40)	95	40 / 50
104	16.2 (36)	36 / 50	16.2 (37)	100	37 / 50	15.7 (45)	97	45 / 50	15.3 (40)	94	40 / 50

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

Note: Average food consumption on 3 week could not be calculated, because the remained food has been lost.

TABLE 4 FOOD CONSUMPTION CHANGES OF FEMALE RATS IN THE 2-YEAR DRINKING WATER STUDY OF 2-PHENOXYETHANOL

Week on Study	Control		2500 ppm			5000 ppm			10000 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	10.4 (50)	50 / 50	10.5 (50)	101	50 / 50	10.3 (50)	99	50 / 50	9.6 (50)	92	50 / 50
2	10.9 (50)	50 / 50	10.6 (50)	97	50 / 50	10.2 (50)	94	50 / 50	10.0 (50)	92	50 / 50
3	11.1 (50)	50 / 50	10.5 (50)	95	50 / 50	10.2 (50)	92	50 / 50	9.8 (50)	88	50 / 50
4	10.8 (50)	50 / 50	10.5 (50)	97	50 / 50	10.2 (50)	94	50 / 50	9.8 (50)	91	50 / 50
5	10.7 (50)	50 / 50	10.2 (50)	95	50 / 50	10.2 (50)	95	50 / 50	9.8 (50)	92	50 / 50
6	10.4 (50)	50 / 50	10.0 (50)	96	50 / 50	9.9 (50)	95	50 / 50	9.5 (50)	91	50 / 50
7	10.2 (50)	50 / 50	9.7 (50)	95	50 / 50	9.8 (50)	96	50 / 50	9.4 (50)	92	50 / 50
8	10.1 (50)	50 / 50	9.5 (50)	94	50 / 50	9.5 (50)	94	50 / 50	9.1 (50)	90	50 / 50
9	10.2 (50)	50 / 50	9.7 (50)	95	50 / 50	9.7 (50)	95	50 / 50	9.1 (50)	89	50 / 50
10	9.9 (50)	50 / 50	9.6 (50)	97	50 / 50	9.6 (50)	97	50 / 50	9.0 (50)	91	50 / 50
11	10.1 (50)	50 / 50	9.9 (50)	98	50 / 50	9.9 (50)	98	50 / 50	9.3 (50)	92	50 / 50
12	10.2 (50)	50 / 50	9.7 (50)	95	50 / 50	9.9 (50)	97	50 / 50	9.2 (50)	90	50 / 50
13	10.1 (50)	50 / 50	9.7 (50)	96	50 / 50	9.8 (50)	97	50 / 50	9.4 (50)	93	50 / 50
17	10.4 (50)	50 / 50	10.0 (50)	96	50 / 50	10.0 (50)	96	50 / 50	9.4 (50)	90	50 / 50
21	10.2 (50)	50 / 50	9.9 (50)	97	50 / 50	9.8 (50)	96	50 / 50	9.3 (50)	91	50 / 50
25	10.5 (49)	49 / 50	10.2 (50)	97	50 / 50	10.2 (50)	97	50 / 50	9.6 (50)	91	50 / 50
29	10.7 (49)	49 / 50	10.1 (50)	94	50 / 50	10.1 (50)	94	50 / 50	9.6 (50)	90	50 / 50
33	10.5 (49)	49 / 50	10.4 (50)	99	50 / 50	10.2 (50)	97	50 / 50	9.7 (50)	92	50 / 50
37	10.3 (49)	49 / 50	9.8 (50)	95	50 / 50	9.8 (50)	95	50 / 50	9.3 (50)	90	50 / 50
41	10.6 (49)	49 / 50	10.2 (50)	96	50 / 50	10.3 (50)	97	50 / 50	9.8 (50)	92	50 / 50
45	11.1 (49)	49 / 50	10.8 (50)	97	50 / 50	10.6 (50)	95	50 / 50	10.1 (50)	91	50 / 50
49	10.9 (49)	49 / 50	10.5 (50)	96	50 / 50	10.6 (50)	97	50 / 50	10.1 (50)	93	50 / 50
53	11.1 (49)	49 / 50	11.0 (50)	99	50 / 50	10.8 (50)	97	50 / 50	10.3 (50)	93	50 / 50
57	11.7 (49)	49 / 50	11.0 (50)	94	50 / 50	11.4 (50)	97	50 / 50	10.8 (50)	92	50 / 50
61	11.7 (49)	49 / 50	11.4 (50)	97	50 / 50	11.3 (50)	97	50 / 50	10.9 (50)	93	50 / 50
65	11.7 (49)	49 / 50	11.6 (50)	99	50 / 50	11.4 (50)	97	50 / 50	11.1 (50)	95	50 / 50
69	11.7 (48)	48 / 50	11.2 (50)	96	50 / 50	11.5 (50)	98	50 / 50	10.9 (50)	93	50 / 50
73	12.0 (46)	46 / 50	11.6 (50)	97	50 / 50	11.6 (50)	97	50 / 50	11.2 (50)	93	50 / 50
77	12.2 (45)	45 / 50	11.8 (48)	97	48 / 50	11.8 (49)	97	49 / 50	11.3 (50)	93	50 / 50
78	12.0 (44)	45 / 50	11.7 (46)	98	48 / 50	11.5 (47)	96	49 / 50	11.1 (48)	93	50 / 50
82	12.2 (45)	45 / 50	11.9 (48)	98	48 / 50	11.5 (48)	94	48 / 50	11.3 (49)	93	49 / 50
86	12.7 (45)	45 / 50	12.2 (48)	96	48 / 50	12.2 (47)	96	47 / 50	11.6 (49)	91	49 / 50
90	12.3 (44)	44 / 50	12.0 (48)	98	48 / 50	11.6 (47)	94	47 / 50	11.6 (48)	94	48 / 50
94	12.8 (42)	42 / 50	12.1 (46)	95	46 / 50	12.2 (46)	95	46 / 50	11.8 (48)	92	48 / 50
98	12.7 (42)	42 / 50	12.4 (45)	98	45 / 50	11.7 (44)	92	44 / 50	11.5 (48)	91	48 / 50
102	12.6 (40)	40 / 50	11.9 (42)	94	42 / 50	12.0 (40)	95	40 / 50	11.4 (44)	90	44 / 50
104	12.5 (39)	39 / 50	12.2 (40)	98	40 / 50	12.1 (38)	97	38 / 50	11.7 (41)	94	41 / 50

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

TABLE 5 WATER CONSUMPTION CHANGES OF MALE RATS IN THE 2-YEAR DRINKING WATER STUDY OF 2-PHENOXYETHANOL

Week on Study	Control			2500 ppm			5000 ppm			10000 ppm		
	Av. WC.		No. of Surviv.	Av. WC.	% of cont.	No. of Surviv.	Av. WC.	% of cont.	No. of Surviv.	Av. WC.	% of cont.	No. of Surviv.
	<50>			<50>			<50>			<50>		
1	18.8 (50)		50 / 50	17.2 (50)	91	50 / 50	16.3 (50)	87	50 / 50	14.7 (50)	78	50 / 50
2	19.3 (50)		50 / 50	18.7 (50)	97	50 / 50	17.1 (50)	89	50 / 50	15.4 (50)	80	50 / 50
3	20.1 (50)		50 / 50	19.6 (50)	98	50 / 50	17.8 (50)	89	50 / 50	17.3 (50)	86	50 / 50
4	20.5 (50)		50 / 50	19.8 (50)	97	50 / 50	18.1 (50)	88	50 / 50	16.5 (50)	80	50 / 50
5	19.7 (50)		50 / 50	19.4 (50)	98	50 / 50	17.6 (50)	89	50 / 50	15.2 (50)	77	50 / 50
6	19.5 (50)		50 / 50	18.8 (50)	96	50 / 50	18.1 (50)	93	50 / 50	15.6 (50)	80	50 / 50
7	19.1 (50)		50 / 50	18.8 (50)	98	50 / 50	17.8 (50)	93	50 / 50	14.9 (49)	78	50 / 50
8	19.0 (50)		50 / 50	19.0 (50)	100	50 / 50	17.7 (50)	93	50 / 50	15.1 (50)	79	50 / 50
9	18.9 (50)		50 / 50	18.3 (50)	97	50 / 50	18.4 (50)	97	50 / 50	15.2 (50)	80	50 / 50
10	18.8 (50)		50 / 50	18.2 (50)	97	50 / 50	17.6 (50)	94	50 / 50	15.7 (50)	84	50 / 50
11	18.4 (50)		50 / 50	17.2 (50)	93	50 / 50	16.9 (49)	92	50 / 50	16.3 (50)	89	50 / 50
12	18.3 (50)		50 / 50	17.3 (50)	95	50 / 50	16.8 (50)	92	50 / 50	16.4 (50)	90	50 / 50
13	18.1 (50)		50 / 50	17.8 (50)	98	50 / 50	16.8 (50)	93	50 / 50	15.1 (50)	83	50 / 50
17	17.2 (50)		50 / 50	16.6 (50)	97	50 / 50	16.4 (50)	95	50 / 50	15.0 (50)	87	50 / 50
21	18.0 (50)		50 / 50	17.1 (50)	95	50 / 50	16.8 (50)	93	50 / 50	15.6 (50)	87	50 / 50
25	17.7 (50)		50 / 50	17.4 (50)	98	50 / 50	18.7 (50)	106	50 / 50	16.8 (50)	95	50 / 50
29	17.7 (50)		50 / 50	17.0 (50)	96	50 / 50	16.9 (50)	95	50 / 50	15.9 (50)	90	50 / 50
33	17.5 (50)		50 / 50	17.2 (48)	98	50 / 50	17.2 (50)	98	50 / 50	16.2 (49)	93	50 / 50
37	17.3 (50)		50 / 50	17.3 (50)	100	50 / 50	17.3 (50)	100	50 / 50	17.7 (50)	102	50 / 50
41	16.0 (50)		50 / 50	16.1 (50)	101	50 / 50	16.8 (50)	105	50 / 50	16.8 (50)	105	50 / 50
45	17.8 (50)		50 / 50	17.5 (50)	98	50 / 50	17.8 (50)	100	50 / 50	17.8 (50)	100	50 / 50
49	17.6 (50)		50 / 50	17.4 (50)	99	50 / 50	18.1 (50)	103	50 / 50	18.3 (50)	104	50 / 50
53	18.2 (50)		50 / 50	17.6 (50)	97	50 / 50	18.7 (50)	103	50 / 50	17.9 (50)	98	50 / 50
57	17.8 (50)		50 / 50	17.7 (49)	99	49 / 50	18.8 (50)	106	50 / 50	18.7 (50)	105	50 / 50
61	17.7 (50)		50 / 50	17.7 (48)	100	48 / 50	19.5 (50)	110	50 / 50	19.2 (50)	108	50 / 50
65	18.1 (50)		50 / 50	18.1 (48)	100	48 / 50	18.8 (50)	104	50 / 50	18.3 (50)	101	50 / 50
69	18.1 (50)		50 / 50	18.2 (48)	101	48 / 50	18.9 (50)	104	50 / 50	19.7 (49)	109	49 / 50
73	18.4 (49)		49 / 50	18.1 (47)	98	47 / 50	19.1 (49)	104	49 / 50	20.2 (49)	110	49 / 50
77	18.3 (49)		49 / 50	18.8 (47)	103	47 / 50	18.9 (49)	103	49 / 50	20.4 (49)	111	49 / 50
78	18.8 (49)		49 / 50	18.8 (47)	100	47 / 50	19.5 (48)	104	49 / 50	20.4 (49)	109	49 / 50
82	18.9 (47)		47 / 50	18.7 (47)	99	47 / 50	20.0 (49)	106	49 / 50	19.5 (49)	103	49 / 50
86	17.8 (43)		43 / 50	19.0 (45)	107	45 / 50	19.4 (48)	109	49 / 50	20.5 (48)	115	48 / 50
90	18.9 (40)		41 / 50	20.0 (45)	106	45 / 50	21.0 (48)	111	48 / 50	21.2 (48)	112	48 / 50
94	19.4 (40)		40 / 50	21.1 (44)	109	44 / 50	20.4 (48)	105	48 / 50	21.0 (47)	108	48 / 50
98	19.5 (38)		38 / 50	20.9 (44)	107	44 / 50	20.1 (47)	103	47 / 50	19.9 (44)	102	44 / 50
102	20.9 (36)		36 / 50	20.7 (36)	99	39 / 50	20.8 (44)	100	45 / 50	20.2 (39)	97	40 / 50
104	21.4 (36)		36 / 50	22.3 (37)	104	37 / 50	22.2 (45)	104	45 / 50	20.1 (39)	94	40 / 50

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

TABLE 6 WATER CONSUMPTION CHANGES OF FEMALE RATS IN THE 2-YEAR DRINKING WATER STUDY OF 2-PHENOXYETHANOL

Week on Study	Control		2500 ppm			5000 ppm			10000 ppm		
	Av. WC.	No. of Surviv. <50>	Av. WC.	% of cont.	No. of Surviv. <50>	Av. WC.	% of cont.	No. of Surviv. <50>	Av. WC.	% of cont.	No. of Surviv. <50>
1	15.0 (49)	50 / 50	14.5 (50)	97	50 / 50	13.5 (50)	90	50 / 50	11.7 (50)	78	50 / 50
2	16.4 (50)	50 / 50	15.4 (50)	94	50 / 50	14.3 (50)	87	50 / 50	12.4 (50)	76	50 / 50
3	16.3 (50)	50 / 50	15.6 (50)	96	50 / 50	14.4 (50)	88	50 / 50	12.3 (50)	75	50 / 50
4	17.4 (50)	50 / 50	15.2 (50)	87	50 / 50	14.5 (50)	83	50 / 50	12.4 (50)	71	50 / 50
5	17.2 (50)	50 / 50	14.3 (50)	83	50 / 50	14.3 (50)	83	50 / 50	12.1 (50)	70	50 / 50
6	18.4 (49)	50 / 50	14.5 (50)	79	50 / 50	13.9 (50)	76	50 / 50	12.0 (50)	65	50 / 50
7	17.1 (47)	50 / 50	13.3 (48)	78	50 / 50	13.9 (50)	81	50 / 50	11.9 (50)	70	50 / 50
8	17.7 (47)	50 / 50	13.7 (48)	77	50 / 50	14.5 (48)	82	50 / 50	11.4 (49)	64	50 / 50
9	17.6 (49)	50 / 50	14.3 (49)	81	50 / 50	14.9 (50)	85	50 / 50	12.1 (50)	69	50 / 50
10	18.4 (48)	50 / 50	14.4 (47)	78	50 / 50	14.2 (48)	77	50 / 50	12.1 (50)	66	50 / 50
11	19.1 (49)	50 / 50	15.0 (49)	79	50 / 50	14.8 (48)	77	50 / 50	12.1 (50)	63	50 / 50
12	18.1 (45)	50 / 50	14.4 (48)	80	50 / 50	15.7 (49)	87	50 / 50	12.7 (50)	70	50 / 50
13	20.4 (49)	50 / 50	15.6 (48)	76	50 / 50	14.7 (48)	72	50 / 50	12.8 (48)	63	50 / 50
17	19.5 (48)	50 / 50	15.7 (48)	81	50 / 50	15.1 (49)	77	50 / 50	12.3 (49)	63	50 / 50
21	20.2 (50)	50 / 50	15.2 (49)	75	50 / 50	17.8 (50)	88	50 / 50	13.6 (49)	67	50 / 50
25	18.7 (48)	49 / 50	14.8 (45)	79	50 / 50	15.9 (49)	85	50 / 50	14.6 (50)	78	50 / 50
29	17.6 (48)	49 / 50	15.9 (50)	90	50 / 50	15.4 (49)	88	50 / 50	14.7 (49)	84	50 / 50
33	18.2 (49)	49 / 50	15.9 (50)	87	50 / 50	15.7 (50)	86	50 / 50	13.8 (49)	76	50 / 50
37	17.2 (49)	49 / 50	15.9 (50)	92	50 / 50	15.6 (49)	91	50 / 50	15.0 (49)	87	50 / 50
41	17.7 (48)	49 / 50	16.8 (50)	95	50 / 50	16.3 (49)	92	50 / 50	16.2 (49)	92	50 / 50
45	16.9 (49)	49 / 50	15.8 (50)	93	50 / 50	16.0 (50)	95	50 / 50	15.3 (50)	91	50 / 50
49	17.3 (49)	49 / 50	15.9 (49)	92	50 / 50	16.8 (50)	97	50 / 50	15.1 (50)	87	50 / 50
53	16.9 (49)	49 / 50	15.7 (50)	93	50 / 50	16.4 (50)	97	50 / 50	15.1 (50)	89	50 / 50
57	15.2 (48)	49 / 50	17.0 (49)	112	50 / 50	15.5 (50)	102	50 / 50	16.3 (49)	107	50 / 50
61	16.4 (49)	49 / 50	16.4 (50)	100	50 / 50	15.4 (50)	94	50 / 50	16.2 (50)	99	50 / 50
65	15.1 (49)	49 / 50	14.8 (50)	98	50 / 50	14.9 (50)	99	50 / 50	16.2 (50)	107	50 / 50
69	15.2 (48)	48 / 50	14.4 (50)	95	50 / 50	15.5 (50)	102	50 / 50	17.6 (50)	116	50 / 50
73	15.5 (46)	46 / 50	15.8 (50)	102	50 / 50	15.6 (50)	101	50 / 50	17.7 (50)	114	50 / 50
77	15.0 (45)	45 / 50	15.7 (48)	105	48 / 50	14.6 (49)	97	49 / 50	17.2 (50)	115	50 / 50
78	15.5 (45)	45 / 50	16.2 (48)	105	48 / 50	15.3 (49)	99	49 / 50	18.0 (50)	116	50 / 50
82	15.5 (45)	45 / 50	15.2 (48)	98	48 / 50	14.5 (48)	94	48 / 50	17.6 (49)	114	49 / 50
86	16.2 (45)	45 / 50	16.0 (48)	99	48 / 50	14.9 (47)	92	47 / 50	17.6 (48)	109	49 / 50
90	17.4 (44)	44 / 50	15.5 (48)	89	48 / 50	15.5 (47)	89	47 / 50	18.5 (48)	106	48 / 50
94	17.1 (42)	42 / 50	16.4 (46)	96	46 / 50	16.4 (46)	96	46 / 50	18.9 (48)	111	48 / 50
98	19.0 (42)	42 / 50	16.8 (45)	88	45 / 50	16.5 (44)	87	44 / 50	18.9 (47)	99	48 / 50
102	18.9 (40)	40 / 50	17.5 (42)	93	42 / 50	17.2 (40)	91	40 / 50	19.1 (44)	101	44 / 50
104	18.8 (39)	39 / 50	18.1 (40)	96	40 / 50	17.3 (38)	92	38 / 50	19.3 (41)	103	41 / 50

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

TABLE 7 HEMATOLOGY OF MALE RATS IN THE 2-YEAR DRINKING WATER STUDY OF 2-PHENOXYETHANOL

Group Name	Control	2500 ppm	5000 ppm	10000 ppm
No. of examined animals	36	37	44	39
MCH (pg)	17.1 ± 2.5	16.1 ± 1.7 *	16.6 ± 1.8	16.8 ± 1.8

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

TABLE 8 HEMATOLOGY OF FEMALE RATS IN THE 2-YEAR DRINKING WATER STUDY OF 2-PHENOXYETHANOL

Group Name	Control	2500 ppm	5000 ppm	10000 ppm
No. of examined animals	38	39	38	41
MCV (fL)	52.5 ± 5.2	54.5 ± 11.5	54.6 ± 9.5	55.0 ± 8.5 **
MCHC (g/dL)	34.3 ± 3.0	34.6 ± 1.6	34.6 ± 1.5	34.3 ± 1.6 **

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

TABLE 9 BIOCHEMISTRY OF MALE RATS IN THE 2-YEAR DRINKING WATER STUDY OF 2-PHENOXYETHANOL

Group Name	Control	2500 ppm	5000 ppm	10000 ppm	
No. of examined animals	36	37	44	39	
TOTAL PROTEIN (g/dL)	6.8 ± 0.4	6.7 ± 0.3	6.7 ± 0.4	6.6 ± 0.3	*
AST (IU/L)	102 ± 85	99 ± 28	117 ± 93	148 ± 175	**
ALT (IU/L)	43 ± 16	47 ± 13	47 ± 22	65 ± 51	**
CREATININE (mg/dL)	0.6 ± 0.1	0.6 ± 0.1	0.6 ± 0.1	0.5 ± 0.1	*

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

TABLE 10 BIOCHEMISTRY OF FEMALE RATS IN THE 2-YEAR DRINKING WATER STUDY OF 2-PHENOXYETHANOL

Group Name	Control	2500 ppm	5000 ppm	10000 ppm	
No. of examined animals	39	39	38	41	
T-BILIRUBIN (mg/dL)	0.17 ± 0.15	0.18 ± 0.17	0.39 ± 1.47	0.21 ± 0.48	**
TRIGLYCERIDE (mg/dL)	71 ± 65	57 ± 49	52 ± 38	40 ± 31	**
UREA NITROGEN (mg/dL)	17.4 ± 3.4	17.5 ± 3.5	17.4 ± 2.3	18.8 ± 3.4	*

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

TABLE 11 URINALYSIS OF FEMALE RATS IN THE 2-YEAR DRINKING WATER STUDY OF 2-PHENOXYETHANOL

Group Name		Control	2500 ppm	5000 ppm	10000 ppm
No. of examined animals		39	41	38	42
	Grade				
pH	5.0	0	0	0	0
	6.0	1	1	0	1
	6.5	3	3	4	12
	7.0	1	5	3	12
	7.5	8	6	10	6
	8.0	23	21	16	10
	8.5	3	5	5	1
	Chi square test				**
Protein	−	0	0	0	0
	±	0	2	2	5
	+	8	5	10	14
	2+	12	14	12	14
	3+	11	16	10	9
	4+	8	4	4	0
	Chi square test				**
Ketone body	−	5	10	8	22
	±	34	30	29	20
	+	0	1	1	0
	2+	0	0	0	0
	3+	0	0	0	0
	4+	0	0	0	0
	Chi square test				**

Significant difference: * : $p \leqq 0.05$ ** : $p \leqq 0.01$

TABLE 12 ORGAN WEIGHTS OF MALE RATS IN THE 2-YEAR DRINKING WATER STUDY OF 2-PHENOXYETHANOL

Group Name	Control	2500 ppm		5000 ppm		10000 ppm	
No. of examined animals	36	37		44		39	
Body weight (g)	390 ± 35	382 ± 28		378 ± 26		366 ± 30	**
Adrenals (g)	0.066 ± 0.009	0.081 ± 0.054	*	0.092 ± 0.116	**	0.088 ± 0.121	
Adrenals (%)	0.017 ± 0.003	0.021 ± 0.013	*	0.024 ± 0.029	**	0.025 ± 0.035	*
Kidneys (g)	2.767 ± 0.417	2.789 ± 0.334		2.782 ± 0.267		2.849 ± 0.245	
Kidneys (%)	0.714 ± 0.114	0.734 ± 0.105		0.738 ± 0.086		0.783 ± 0.101	*
Brain (g)	2.062 ± 0.047	2.068 ± 0.048		2.059 ± 0.045		2.063 ± 0.034	
Brain (%)	0.533 ± 0.044	0.544 ± 0.035		0.547 ± 0.036		0.567 ± 0.049	**

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

TABLE 13 ORGAN WEIGHTS OF FEMALE RATS IN THE 2-YEAR DRINKING WATER STUDY OF 2-PHENOXYETHANOL

Group Name	Control	2500 ppm		5000 ppm		10000 ppm	
No. of examined animals	39	40		38		41	
Body weight (g)	254 ± 39	241 ± 26		242 ± 29		227 ± 21	**
Adrenals (g)	0.075 ± 0.015	0.100 ± 0.176		0.076 ± 0.041		0.067 ± 0.007	*
Adrenals (%)	0.030 ± 0.009	0.044 ± 0.083		0.032 ± 0.018		0.030 ± 0.003	
Ovaries (g)	0.119 ± 0.025	0.128 ± 0.022		0.151 ± 0.185		0.142 ± 0.097	
Ovaries (%)	0.047 ± 0.008	0.054 ± 0.013	*	0.063 ± 0.080		0.063 ± 0.043	**
Heart (g)	0.895 ± 0.090	0.893 ± 0.092		0.860 ± 0.085		0.853 ± 0.071	
Heart (%)	0.359 ± 0.053	0.376 ± 0.069		0.358 ± 0.037		0.378 ± 0.034	**
Kidneys (g)	1.806 ± 0.133	1.787 ± 0.134		1.809 ± 0.148		1.891 ± 0.175	*
Kidneys (%)	0.726 ± 0.116	0.751 ± 0.121		0.755 ± 0.088		0.839 ± 0.110	**
Brain (g)	1.892 ± 0.048	1.891 ± 0.043		1.881 ± 0.034		1.864 ± 0.058	
Brain (%)	0.762 ± 0.120	0.793 ± 0.097		0.789 ± 0.111		0.829 ± 0.085	*

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

TABLE 14 INCIDENCES OF SELECTED NEOPLASTIC LESIONS OF MALE RATS IN THE 2-YEAR DRINKING WATER STUDY OF 2-PHENOXYETHANOL

Group Name	Control	2500 ppm	5000 ppm	10000 ppm	Peto	Cochran-
Number of examined animals	50	50	50	50	test	Armitage test
adrenal gland	<50>	<50>	<50>	<50>		
pheochromocytoma [1]	1 (2 %)	4 (8 %)	4 (8 %)	1 (2 %)		
pheochromocytoma: malignant [2]	0 (0 %)	2 (4 %)	3 (6 %)	1 (2 %)		
1) + 2)	1 (2 %)	6 (12 %)	7 (14 %) *	2 (4 %)		

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 DRINKING WATER STUDY OF 2-PHENOXYETHANOL

Group Name	Control				2500 ppm				5000 ppm				10000 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>			
papillary necrosis	0	1	0	0	1	0	0	0	0	0	0	0	3	1	0	0
mineralization: papilla	0	0	0	0	0	0	0	0	1	0	0	0	6	0	0	0 *
urothelial hyperplasia: pelvis	1	0	0	0	1	0	0	0	1	0	0	0	5	3	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 16 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. (%)
Adrenal	2098			
Pheochromocytoma 1)		251	12.0	0 - 40
Pheochromocytoma : malignant 2)		37	1.8	0 - 8
1)+2)		283	13.5	2 - 46

42 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, 0246, 0267, 0269, 0278, 0284, 0288, 0294, 0296, 0318, 0328, 0342, 0347, 0365, 0371, 0396, 0399, 0401, 0407, 0417, 0421, 0437, 0448, 0457, 0461

TABLE 17 CAUSE OF DEATH OF RATS IN THE 2-YEAR DRINKING WATER STUDY OF 2-PHENOXYETHANOL

		Male				Female			
Group name		Control	2500 ppm	5000 ppm	10000 ppm	Control	2500 ppm	5000 ppm	10000 ppm
Number of dead or moribund animals		14	13	5	10	11	10	12	9
No microscopical confirmation		2	1	0	3	2	0	1	2
cardiovascular lesion		1	0	0	0	0	0	0	1
urinary system lesion		0	0	0	0	0	0	0	1
arteritis		0	1	0	0	0	0	0	0
Tumor death ：	leukemia	2	3	0	2	2	4	4	1
	skin/appendage	0	0	0	1	0	0	0	0
	subcutis	2	1	0	0	0	0	0	0
	bone marrow	0	0	0	0	1	0	0	0
	thymus	1	0	0	0	0	0	0	0
	oral cavity	1	0	0	0	0	0	0	0
	small intestine	0	1	0	0	0	0	0	0
	kidney	0	1	0	0	0	0	0	0
	urinary bladder	1	0	0	0	0	0	0	0
	pituitary gland	3	3	1	2	0	2	3	1
	thyroid	0	1	0	0	0	0	0	0
	adrenal gland	0	0	1	0	0	0	0	0
	ovary	—	—	—	—	0	0	1	0
	uterus	—	—	—	—	3	3	2	3
	mammary gland	0	0	0	0	1	0	0	0
	preputial gland	0	0	1	0	—	—	—	—
	brain	0	0	1	0	2	0	0	0
	Zymbal gland	1	0	0	0	0	0	0	0
	bone	0	1	0	1	0	1	0	0
	peritoneum	0	0	1	1	0	0	1	0