プロピオノニトリルのラットを用いた
吸入によるがん原性試験報告書

試験番号：0535

TABLES

TABLES

TABLES (CONTINUED)

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TABLE 1 CONCENTRATIONS OF PROPIONONITRILE IN THE INHALATION CHAMBER OF THE 2-YEAR INHALATION STUDY

Group Name	Concentration(ppm) Mean ± S.D.
Control	0.0 ± 0.0
25 ppm	25.1 ± 0.2
50 ppm	50.1 ± 0.4
100 ppm	100.0 ± 2.0

TABLE 2 SURVIVAL ANIMAL NUMBERS AND BODY WEIGHT CHANGES OF MALE RATS IN THE 2-YEAR INHALATION STUDY OF PROPIONONITRILE

Week on Study	Control		25 ppm			50 ppm			100 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	122 (50)	50 / 50	122 (50)	100	50 / 50	122 (50)	100	50 / 50	121 (50)	99	50 / 50
1	151 (50)	50 / 50	150 (50)	99	50 / 50	150 (50)	99	50 / 50	146 (50)	97	50 / 50
2	182 (50)	50 / 50	181 (50)	99	50 / 50	181 (50)	99	50 / 50	170 (50)	93	50 / 50
3	206 (50)	50 / 50	205 (50)	100	50 / 50	205 (50)	100	50 / 50	190 (50)	92	50 / 50
4	225 (50)	50 / 50	226 (50)	100	50 / 50	225 (50)	100	50 / 50	209 (50)	93	50 / 50
5	243 (50)	50 / 50	242 (50)	100	50 / 50	243 (50)	100	50 / 50	227 (50)	93	50 / 50
6	259 (50)	50 / 50	256 (50)	99	50 / 50	257 (50)	99	50 / 50	238 (50)	92	50 / 50
7	271 (50)	50 / 50	268 (50)	99	50 / 50	270 (50)	100	50 / 50	250 (50)	92	50 / 50
8	284 (50)	50 / 50	282 (50)	99	50 / 50	282 (50)	99	50 / 50	261 (50)	92	50 / 50
9	294 (50)	50 / 50	292 (50)	99	50 / 50	292 (50)	99	50 / 50	270 (50)	92	50 / 50
10	302 (50)	50 / 50	300 (50)	99	50 / 50	301 (50)	100	50 / 50	277 (50)	92	50 / 50
11	310 (50)	50 / 50	307 (50)	99	50 / 50	309 (50)	100	50 / 50	286 (50)	92	50 / 50
12	316 (50)	50 / 50	313 (50)	99	50 / 50	314 (50)	99	50 / 50	291 (50)	92	50 / 50
13	321 (50)	50 / 50	319 (50)	99	50 / 50	321 (50)	100	50 / 50	297 (50)	93	50 / 50
17	341 (50)	50 / 50	334 (50)	98	50 / 50	340 (50)	100	50 / 50	315 (50)	92	50 / 50
21	356 (50)	50 / 50	352 (50)	99	50 / 50	353 (50)	99	50 / 50	329 (50)	92	50 / 50
25	368 (50)	50 / 50	364 (50)	99	50 / 50	366 (50)	99	50 / 50	342 (50)	93	50 / 50
29	381 (50)	50 / 50	376 (50)	99	50 / 50	376 (50)	99	50 / 50	351 (50)	92	50 / 50
33	390 (50)	50 / 50	386 (50)	99	50 / 50	386 (50)	99	50 / 50	359 (50)	92	50 / 50
37	391 (50)	50 / 50	388 (50)	99	50 / 50	388 (50)	99	50 / 50	362 (50)	93	50 / 50
41	385 (50)	50 / 50	383 (50)	99	50 / 50	383 (49)	99	50 / 50	358 (50)	93	50 / 50
45	395 (50)	50 / 50	392 (50)	99	50 / 50	392 (50)	99	50 / 50	367 (50)	93	50 / 50
49	409 (49)	49 / 50	405 (50)	99	50 / 50	405 (50)	99	50 / 50	379 (50)	93	50 / 50
53	416 (49)	49 / 50	410 (50)	99	50 / 50	411 (49)	99	49 / 50	385 (50)	93	50 / 50
54	416 (49)	49 / 50	411 (50)	99	50 / 50	412 (49)	99	49 / 50	386 (50)	93	50 / 50
58	418 (49)	49 / 50	415 (50)	99	50 / 50	416 (49)	100	49 / 50	389 (50)	93	50 / 50
62	423 (49)	49 / 50	418 (50)	99	50 / 50	417 (49)	99	49 / 50	393 (50)	93	50 / 50
66	425 (49)	49 / 50	420 (50)	99	50 / 50	418 (49)	98	49 / 50	394 (50)	93	50 / 50
70	428 (49)	49 / 50	423 (50)	99	50 / 50	420 (48)	98	48 / 50	398 (50)	93	50 / 50
74	430 (48)	48 / 50	426 (50)	99	50 / 50	422 (47)	98	47 / 50	401 (50)	93	50 / 50
78	430 (48)	48 / 50	425 (49)	99	49 / 50	420 (47)	98	47 / 50	402 (50)	93	50 / 50
82	428 (47)	47 / 50	422 (49)	99	49 / 50	415 (46)	97	46 / 50	399 (48)	93	48 / 50
86	427 (47)	47 / 50	422 (48)	99	48 / 50	418 (44)	98	44 / 50	399 (48)	93	48 / 50
90	425 (47)	47 / 50	420 (48)	99	48 / 50	417 (44)	98	44 / 50	395 (45)	93	45 / 50
94	421 (47)	47 / 50	422 (47)	100	47 / 50	413 (43)	98	43 / 50	390 (43)	93	43 / 50
98	416 (46)	46 / 50	414 (44)	100	44 / 50	407 (43)	98	43 / 50	383 (39)	92	39 / 50
102	412 (45)	45 / 50	410 (44)	100	44 / 50	400 (43)	97	43 / 50	382 (37)	93	37 / 50
104	408 (44)	44 / 50	406 (44)	100	44 / 50	395 (42)	97	42 / 50	377 (36)	92	36 / 50

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

TABLE 3 SURVIVAL ANIMAL NUMBERS AND BODY WEIGHT CHANGES OF FEMALE RATS IN THE 2-YEAR INHALATION STUDY OF PROPIONONITRILE

Week on Study	Control		25 ppm			50 ppm			100 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	95 (50)	50 / 50	95 (50)	100	50 / 50	95 (50)	100	50 / 50	95 (50)	100	50 / 50
1	109 (50)	50 / 50	109 (50)	100	50 / 50	109 (50)	100	50 / 50	108 (50)	99	50 / 50
2	123 (50)	50 / 50	123 (50)	100	50 / 50	123 (50)	100	50 / 50	120 (50)	98	50 / 50
3	132 (50)	50 / 50	133 (50)	101	50 / 50	132 (50)	100	50 / 50	129 (50)	98	50 / 50
4	140 (50)	50 / 50	142 (50)	101	50 / 50	141 (50)	101	50 / 50	138 (50)	99	50 / 50
5	148 (50)	50 / 50	148 (50)	100	50 / 50	148 (50)	100	50 / 50	146 (50)	99	50 / 50
6	154 (50)	50 / 50	155 (50)	101	50 / 50	154 (50)	100	50 / 50	150 (50)	97	50 / 50
7	157 (50)	50 / 50	159 (50)	101	50 / 50	158 (50)	101	50 / 50	155 (50)	99	50 / 50
8	162 (50)	50 / 50	164 (50)	101	50 / 50	162 (50)	100	50 / 50	160 (50)	99	50 / 50
9	166 (50)	50 / 50	170 (50)	102	50 / 50	166 (50)	100	50 / 50	164 (50)	99	50 / 50
10	170 (50)	50 / 50	173 (50)	102	50 / 50	169 (50)	99	50 / 50	167 (50)	98	50 / 50
11	174 (50)	50 / 50	177 (50)	102	50 / 50	173 (50)	99	50 / 50	171 (50)	98	50 / 50
12	176 (50)	50 / 50	178 (50)	101	50 / 50	176 (50)	100	50 / 50	173 (50)	98	50 / 50
13	178 (50)	50 / 50	182 (50)	102	50 / 50	179 (50)	101	50 / 50	176 (50)	99	50 / 50
17	186 (50)	50 / 50	190 (50)	102	50 / 50	188 (50)	101	50 / 50	183 (50)	98	50 / 50
21	190 (50)	50 / 50	194 (50)	102	50 / 50	190 (50)	100	50 / 50	188 (50)	99	50 / 50
25	196 (50)	50 / 50	200 (50)	102	50 / 50	195 (50)	99	50 / 50	194 (50)	99	50 / 50
29	199 (50)	50 / 50	203 (50)	102	50 / 50	197 (50)	99	50 / 50	197 (50)	99	50 / 50
33	200 (50)	50 / 50	202 (50)	101	50 / 50	197 (50)	99	50 / 50	195 (50)	98	50 / 50
37	209 (50)	50 / 50	212 (50)	101	50 / 50	207 (50)	99	50 / 50	206 (50)	99	50 / 50
41	213 (50)	50 / 50	216 (50)	101	50 / 50	210 (50)	99	50 / 50	210 (50)	99	50 / 50
45	215 (50)	50 / 50	219 (50)	102	50 / 50	212 (50)	99	50 / 50	212 (50)	99	50 / 50
49	218 (50)	50 / 50	222 (50)	102	50 / 50	215 (50)	99	50 / 50	215 (50)	99	50 / 50
53	221 (50)	50 / 50	225 (50)	102	50 / 50	219 (50)	99	50 / 50	217 (50)	98	50 / 50
54	221 (50)	50 / 50	226 (50)	102	50 / 50	219 (50)	99	50 / 50	217 (50)	98	50 / 50
58	224 (50)	50 / 50	230 (50)	103	50 / 50	221 (49)	99	49 / 50	221 (49)	99	49 / 50
62	228 (50)	50 / 50	236 (50)	104	50 / 50	224 (49)	98	49 / 50	225 (49)	99	49 / 50
66	233 (50)	50 / 50	241 (50)	103	50 / 50	228 (47)	98	47 / 50	228 (49)	98	49 / 50
70	238 (50)	50 / 50	246 (50)	103	50 / 50	233 (47)	98	47 / 50	234 (49)	98	49 / 50
74	243 (50)	50 / 50	250 (50)	103	50 / 50	238 (47)	98	47 / 50	239 (48)	98	48 / 50
78	246 (49)	49 / 50	254 (50)	103	50 / 50	243 (46)	99	46 / 50	244 (48)	99	48 / 50
82	249 (47)	47 / 50	257 (50)	103	50 / 50	245 (45)	98	45 / 50	246 (47)	99	47 / 50
86	253 (45)	45 / 50	260 (50)	103	50 / 50	249 (44)	98	44 / 50	250 (47)	99	47 / 50
90	257 (44)	44 / 50	264 (49)	103	49 / 50	254 (43)	99	43 / 50	253 (46)	98	46 / 50
94	259 (44)	44 / 50	268 (47)	103	47 / 50	254 (40)	98	40 / 50	255 (45)	98	45 / 50
98	257 (42)	42 / 50	269 (47)	105	47 / 50	260 (39)	101	39 / 50	254 (42)	99	42 / 50
102	258 (40)	40 / 50	272 (45)	105	45 / 50	261 (37)	101	37 / 50	257 (39)	100	39 / 50
104	259 (37)	37 / 50	271 (45)	105	45 / 50	259 (36)	100	36 / 50	256 (39)	99	39 / 50

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

TABLE 4 FOOD CONSUMPTION CHANGES OF MALE RATS IN THE 2-YEAR INHALATION STUDY OF PROPIONONITRILE

Week on Study	Control		25 ppm			50 ppm			100 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	14.4 (50)	50 / 50	14.3 (50)	99	50 / 50	14.1 (50)	98	50 / 50	13.2 (50)	92	50 / 50
2	15.7 (50)	50 / 50	15.7 (50)	100	50 / 50	15.4 (50)	98	50 / 50	13.9 (50)	89	50 / 50
3	16.8 (50)	50 / 50	16.9 (50)	101	50 / 50	16.6 (50)	99	50 / 50	14.8 (50)	88	50 / 50
4	16.9 (50)	50 / 50	16.7 (50)	99	50 / 50	16.7 (50)	99	50 / 50	15.5 (50)	92	50 / 50
5	16.9 (50)	50 / 50	16.9 (50)	100	50 / 50	17.0 (50)	101	50 / 50	16.4 (50)	97	50 / 50
6	16.6 (50)	50 / 50	16.4 (50)	99	50 / 50	16.6 (50)	100	50 / 50	15.4 (50)	93	50 / 50
7	16.7 (50)	50 / 50	16.5 (50)	99	50 / 50	16.3 (50)	98	50 / 50	15.0 (50)	90	50 / 50
8	17.2 (50)	50 / 50	17.3 (50)	101	50 / 50	16.9 (50)	98	50 / 50	15.9 (50)	92	50 / 50
9	16.9 (50)	50 / 50	16.8 (50)	99	50 / 50	16.7 (50)	99	50 / 50	15.5 (50)	92	50 / 50
10	16.9 (50)	50 / 50	16.8 (50)	99	50 / 50	16.8 (50)	99	50 / 50	15.9 (50)	94	50 / 50
11	16.4 (50)	50 / 50	16.2 (50)	99	50 / 50	16.4 (50)	100	50 / 50	15.5 (50)	95	50 / 50
12	16.1 (50)	50 / 50	15.9 (50)	99	50 / 50	16.2 (50)	101	50 / 50	15.3 (50)	95	50 / 50
13	15.9 (50)	50 / 50	15.7 (50)	99	50 / 50	16.0 (50)	101	50 / 50	15.0 (50)	94	50 / 50
17	16.0 (50)	50 / 50	15.5 (50)	97	50 / 50	15.9 (50)	99	50 / 50	15.2 (50)	95	50 / 50
21	16.3 (50)	50 / 50	16.0 (50)	98	50 / 50	16.0 (50)	98	50 / 50	15.3 (50)	94	50 / 50
25	16.0 (50)	50 / 50	15.8 (50)	99	50 / 50	15.7 (50)	98	50 / 50	15.3 (50)	96	50 / 50
29	16.6 (50)	50 / 50	16.5 (50)	99	50 / 50	16.4 (50)	99	50 / 50	15.8 (50)	95	50 / 50
33	16.4 (50)	50 / 50	16.3 (50)	99	50 / 50	16.2 (50)	99	50 / 50	15.2 (50)	93	50 / 50
37	15.4 (50)	50 / 50	15.0 (50)	97	50 / 50	15.5 (50)	101	50 / 50	15.0 (50)	97	50 / 50
41	15.7 (50)	50 / 50	15.6 (50)	99	50 / 50	15.6 (50)	99	50 / 50	15.3 (50)	97	50 / 50
45	15.7 (50)	50 / 50	15.9 (50)	101	50 / 50	15.6 (50)	99	50 / 50	15.0 (50)	96	50 / 50
50	16.5 (49)	49 / 50	16.4 (50)	99	50 / 50	16.3 (49)	99	49 / 50	15.5 (25)	94	50 / 50
53	16.5 (49)	49 / 50	16.5 (50)	100	50 / 50	16.1 (49)	98	49 / 50	15.8 (50)	96	50 / 50
54	16.5 (49)	49 / 50	16.4 (50)	99	50 / 50	16.2 (49)	98	49 / 50	15.9 (50)	96	50 / 50
58	16.2 (49)	49 / 50	16.3 (50)	101	50 / 50	16.3 (49)	101	49 / 50	15.7 (50)	97	50 / 50
62	17.1 (49)	49 / 50	16.9 (50)	99	50 / 50	16.6 (49)	97	49 / 50	16.3 (50)	95	50 / 50
66	16.9 (49)	49 / 50	16.8 (50)	99	50 / 50	16.6 (49)	98	49 / 50	16.1 (50)	95	50 / 50
70	17.2 (49)	49 / 50	17.0 (50)	99	50 / 50	17.0 (48)	99	48 / 50	16.6 (50)	97	50 / 50
74	16.7 (48)	48 / 50	16.5 (50)	99	50 / 50	16.5 (47)	99	47 / 50	16.1 (50)	96	50 / 50
78	16.7 (48)	48 / 50	16.4 (49)	98	49 / 50	16.6 (47)	99	47 / 50	16.4 (50)	98	50 / 50
82	16.3 (47)	47 / 50	16.1 (49)	99	49 / 50	16.1 (46)	99	46 / 50	15.9 (48)	98	48 / 50
86	16.6 (47)	47 / 50	16.3 (48)	98	48 / 50	16.7 (44)	101	44 / 50	16.2 (48)	98	48 / 50
90	16.2 (47)	47 / 50	16.3 (48)	101	48 / 50	16.8 (44)	104	44 / 50	15.9 (45)	98	45 / 50
94	16.3 (47)	47 / 50	16.4 (47)	101	47 / 50	16.7 (43)	102	43 / 50	15.4 (43)	94	43 / 50
98	16.5 (46)	46 / 50	16.7 (44)	101	44 / 50	16.9 (43)	102	43 / 50	15.5 (39)	94	39 / 50
102	16.5 (45)	45 / 50	16.7 (44)	101	44 / 50	16.4 (43)	99	43 / 50	16.2 (37)	98	37 / 50
104	16.5 (44)	44 / 50	16.7 (44)	101	44 / 50	16.9 (42)	102	42 / 50	15.9 (36)	96	36 / 50

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

TABLE 5 FOOD CONSUMPTION CHANGES OF FEMALE RATS IN THE 2-YEAR INHALATION STUDY OF PROPIONONITRILE

Week on Study	Control		25 ppm			50 ppm			100 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	10.5 (50)	50 / 50	10.2 (50)	97	50 / 50	10.1 (50)	96	50 / 50	10.0 (50)	95	50 / 50
2	11.0 (50)	50 / 50	11.1 (50)	101	50 / 50	11.0 (50)	100	50 / 50	10.5 (50)	95	50 / 50
3	11.0 (50)	50 / 50	11.3 (50)	103	50 / 50	11.0 (50)	100	50 / 50	10.9 (50)	99	50 / 50
4	11.2 (50)	50 / 50	11.4 (50)	102	50 / 50	11.3 (50)	101	50 / 50	11.1 (45)	99	50 / 50
5	11.5 (50)	50 / 50	11.6 (50)	101	50 / 50	11.7 (50)	102	50 / 50	11.8 (50)	103	50 / 50
6	11.1 (50)	50 / 50	11.2 (50)	101	50 / 50	10.9 (50)	98	50 / 50	10.6 (50)	95	50 / 50
7	10.8 (50)	50 / 50	11.3 (50)	105	50 / 50	10.9 (50)	101	50 / 50	10.7 (50)	99	50 / 50
8	10.9 (50)	50 / 50	10.9 (50)	100	50 / 50	10.7 (50)	98	50 / 50	10.6 (50)	97	50 / 50
9	10.9 (50)	50 / 50	11.5 (50)	106	50 / 50	10.9 (50)	100	50 / 50	10.8 (50)	99	50 / 50
10	10.7 (50)	50 / 50	11.1 (50)	104	50 / 50	10.8 (50)	101	50 / 50	10.4 (50)	97	50 / 50
11	11.0 (50)	50 / 50	11.2 (50)	102	50 / 50	10.8 (50)	98	50 / 50	11.0 (50)	100	50 / 50
12	10.4 (50)	50 / 50	10.5 (50)	101	50 / 50	10.6 (50)	102	50 / 50	10.4 (50)	100	50 / 50
13	10.7 (50)	50 / 50	11.3 (50)	106	50 / 50	11.0 (50)	103	50 / 50	10.7 (50)	100	50 / 50
17	10.9 (50)	50 / 50	11.2 (50)	103	50 / 50	11.0 (50)	101	50 / 50	10.7 (50)	98	50 / 50
21	10.4 (50)	50 / 50	10.6 (50)	102	50 / 50	10.3 (50)	99	50 / 50	10.4 (50)	100	50 / 50
25	11.1 (50)	50 / 50	11.4 (50)	103	50 / 50	10.7 (50)	96	50 / 50	10.7 (50)	96	50 / 50
29	10.8 (50)	50 / 50	11.1 (50)	103	50 / 50	10.6 (50)	98	50 / 50	11.1 (50)	103	50 / 50
33	10.5 (50)	50 / 50	10.5 (50)	100	50 / 50	10.4 (50)	99	50 / 50	10.0 (50)	95	50 / 50
37	12.4 (50)	50 / 50	12.5 (49)	101	50 / 50	12.1 (50)	98	50 / 50	12.4 (50)	100	50 / 50
41	11.1 (50)	50 / 50	11.3 (50)	102	50 / 50	11.0 (50)	99	50 / 50	11.5 (50)	104	50 / 50
45	11.3 (50)	50 / 50	11.5 (50)	102	50 / 50	10.8 (50)	96	50 / 50	11.1 (50)	98	50 / 50
50	10.5 (50)	50 / 50	10.8 (50)	103	50 / 50	10.1 (50)	96	50 / 50	10.5 (50)	100	50 / 50
53	11.2 (50)	50 / 50	11.4 (50)	102	50 / 50	11.1 (50)	99	50 / 50	10.8 (50)	96	50 / 50
54	10.8 (50)	50 / 50	11.2 (50)	104	50 / 50	10.8 (50)	100	50 / 50	10.7 (50)	99	50 / 50
58	11.0 (50)	50 / 50	11.3 (50)	103	50 / 50	10.6 (49)	96	49 / 50	10.8 (49)	98	49 / 50
62	11.5 (50)	50 / 50	11.8 (50)	103	50 / 50	11.5 (49)	100	49 / 50	11.4 (49)	99	49 / 50
66	11.6 (50)	50 / 50	11.8 (50)	102	50 / 50	11.2 (47)	97	47 / 50	11.5 (49)	99	49 / 50
70	11.7 (50)	50 / 50	12.0 (50)	103	50 / 50	11.6 (47)	99	47 / 50	11.8 (49)	101	49 / 50
74	11.5 (50)	50 / 50	11.8 (50)	103	50 / 50	11.5 (47)	100	47 / 50	11.4 (48)	99	48 / 50
78	11.5 (49)	49 / 50	12.0 (50)	104	50 / 50	11.6 (46)	101	46 / 50	11.7 (48)	102	48 / 50
82	11.4 (47)	47 / 50	11.8 (50)	104	50 / 50	11.6 (45)	102	45 / 50	11.6 (47)	102	47 / 50
86	11.8 (45)	45 / 50	12.1 (50)	103	50 / 50	12.0 (44)	102	44 / 50	11.9 (47)	101	47 / 50
90	12.0 (44)	44 / 50	12.2 (49)	102	49 / 50	12.0 (43)	100	43 / 50	11.8 (46)	98	46 / 50
94	11.7 (44)	44 / 50	12.2 (47)	104	47 / 50	11.9 (40)	102	40 / 50	11.6 (45)	99	45 / 50
98	11.9 (42)	42 / 50	12.5 (47)	105	47 / 50	12.6 (39)	106	39 / 50	12.0 (42)	101	42 / 50
102	11.6 (40)	40 / 50	12.4 (44)	107	45 / 50	12.3 (37)	106	37 / 50	12.3 (39)	106	39 / 50
104	12.2 (37)	37 / 50	12.4 (45)	102	45 / 50	12.0 (36)	98	36 / 50	11.9 (39)	98	39 / 50

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

TABLE 6 HEMATOLOGY OF FEMALE RATS IN THE 2-YEAR INHALATION STUDY OF PROPIONONITRILE

Group Name	Control	25 ppm	50 ppm	100 ppm
No. of examined animals	37	45	36	39
MCV (fL)	51.3 ± 2.1	51.4 ± 3.1	52.7 ± 7.9	53.4 ± 5.0 **
MCH (pg)	18.3 ± 0.5	18.2 ± 1.0	18.5 ± 1.7	18.6 ± 0.9 *
MCHC (g/dL)	35.7 ± 1.1	35.4 ± 1.6	35.4 ± 1.7	35.0 ± 2.0 **
RETICULOCYTE (%)	3.1 ± 4.2	3.3 ± 3.8	4.8 ± 8.0 *	3.9 ± 3.5 **

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

TABLE 7 BIOCHEMISTRY OF FEMALE RATS IN THE 2-YEAR INHALATION STUDY OF PROPIONONITRILE

Group Name	Control	25 ppm	50 ppm	100 ppm	
No. of examined animals	37	45	36	39	
PHOSPHOLIPID (mg/dL)	221 ± 39	227 ± 38	231 ± 46	250 ± 57	*

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

TABLE 8 ORGAN WEIGHTS OF MALE RATS IN THE 2-YEAR INHALATION STUDY OF PROPIONONITRILE

Group Name	Control	25 ppm	50 ppm	100 ppm
No. of examined animals	44	44	42	36
Body weight (g)	382 ± 31	380 ± 24	367 ± 28 *	352 ± 29 **
Kidneys (g)	2.710 ± 0.320	2.649 ± 0.214	2.704 ± 0.355	2.592 ± 0.199
Kidneys (%)	0.714 ± 0.112	0.700 ± 0.062	0.740 ± 0.103	0.741 ± 0.079 *
Liver (g)	10.727 ± 1.801	10.903 ± 1.375	10.879 ± 1.498	10.537 ± 1.089
Liver (%)	2.801 ± 0.319	2.871 ± 0.296	2.972 ± 0.413	3.002 ± 0.298 *
Brain (g)	2.074 ± 0.046	2.069 ± 0.043	2.057 ± 0.044	2.057 ± 0.046
Brain (%)	0.546 ± 0.042	0.547 ± 0.036	0.564 ± 0.047	0.588 ± 0.051 **

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

TABLE 9 ORGAN WEIGHTS OF FEMALE RATS IN THE 2-YEAR INHALATION STUDY OF PROPIONONITRILE

Group Name	Control	25 ppm	50 ppm	100 ppm
No. of examined animals	37	45	36	39
Body weight (g)	240 ± 21	252 ± 27	241 ± 27	238 ± 24
Heart (g)	0.822 ± 0.063	0.881 ± 0.073 **	0.878 ± 0.079 **	0.854 ± 0.076
Heart (%)	0.343 ± 0.030	0.351 ± 0.034	0.368 ± 0.054 *	0.361 ± 0.045
Spleen (g)	0.553 ± 0.250	0.681 ± 0.851	1.017 ± 1.818 *	0.995 ± 1.866 *
Spleen (%)	0.232 ± 0.108	0.275 ± 0.363	0.473 ± 1.037	0.432 ± 0.874
Liver (g)	6.101 ± 0.822	6.477 ± 0.992	6.543 ± 0.876 *	6.711 ± 1.338 *
Liver (%)	2.542 ± 0.295	2.569 ± 0.305	2.737 ± 0.452 **	2.824 ± 0.505 **

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

TABLE 10 INCIDENCES OF SELECTED NEOPLASTIC LESIONS OF MALE RATS IN THE 2-YEAR INHALATION STUDY OF PROPIONONITRILE

Group Name	Control	25 ppm	50 ppm	100 ppm	Peto	Cochran-
Number of examined animals	50	50	50	50	test	Armitage test
subcutis	<50>	<50>	<50>	<50>		
fibroma	1 (2 %)	8 (16 %) *	2 (4 %)	3 (6 %)		
pituitary gland	<50>	<50>	<50>	<50>		
adenoma	6 (12 %)	4 (8 %)	7 (14 %)	8 (16 %)	↑	

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 11 INCIDENCES OF SELECTED NEOPLASTIC LESIONS OF FEMALE RATS IN THE 2-YEAR INHALATION STUDY OF PROPIONONITRILE

Group Name	Control	25 ppm	50 ppm	100 ppm	Peto	Cochran-
Number of examined animals	50	50	50	50	test	Armitage test
uterus	<50>	<50>	<50>	<50>		
endometrial stromal sarcoma	4 (8 %)	0 (0 %)	2 (4 %)	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 12 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. (%)
Subcutis	2099			
Fibroma		159	7.6	2 - 20
Pituitary gland	2093			
Adenoma		682	32.6	14 - 66

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 13 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. (%)
Uterus	1947			
Endometrial stromal sarcoma		23	1.2	0 - 8

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, 0246, 0267, 0269, 0278, 0284, 0296, 0303, 0318, 0328, 0342, 0347, 0365, 0371, 0399, 0401, 0417, 0421, 0437, 0448, 0457, 0461

TABLE 14 CAUSE OF DEATH OF RATS IN THE 2-YEAR INHALATION STUDY OF PROPIONONITRILE

Group name		Male				Female			
		Control	25 ppm	50 ppm	100 ppm	Control	25 ppm	50 ppm	100 ppm
Number of dead or moribund animals		6	6	8	14	13	5	14	11
no microscopical confirmation		0	0	0	1	0	0	2	2
tumor death :	leukemia	2	3	3	3	5	2	4	6
	skin/appendage	0	1	0	1	0	0	0	0
	subcutis	1	1	0	2	0	0	0	1
	stomach	0	1	0	0	0	0	0	0
	kidney	0	0	1	0	0	0	0	1
	pituitary gland	0	0	1	2	2	1	1	0
	thyroid	0	0	1	0	0	0	0	0
	adrenal gland	0	0	0	1	0	0	0	0
	ovary	—	—	—	—	0	0	1	0
	uterus	—	—	—	—	6	0	2	0
	mammary gland	0	0	0	1	0	1	2	0
	clitorel gland	—	—	—	—	0	0	0	1
	brain	0	0	1	0	0	1	1	0
	peripheral nerves	1	0	0	0	0	0	0	0
	Zymbal gland	0	0	0	2	0	0	0	0
	bone	2	0	0	0	0	0	1	0
	vertebra	0	0	1	0	0	0	0	0
	peritoneum	0	0	0	1	0	0	0	0