

プロピオノニトリルのマウスを用いた
吸入による13週間毒性試験報告書

試験番号：0456

TABLES

TABLES

- TABLE 1 SURVIVAL ANIMAL NUMBERS AND BODY WEIGHT CHANGES OF MALE MICE IN THE 13-WEEK INHALATION STUDY OF PROPIONONITRILE
- TABLE 2 SURVIVAL ANIMAL NUMBERS AND BODY WEIGHT CHANGES OF FEMALE MICE IN THE 13-WEEK INHALATION STUDY OF PROPIONONITRILE
- TABLE 3 FOOD CONSUMPTION CHANGES OF MALE MICE IN THE 13-WEEK INHALATION STUDY OF PROPIONONITRILE
- TABLE 4 FOOD CONSUMPTION CHANGES OF FEMALE MICE IN THE 13-WEEK INHALATION STUDY OF PROPIONONITRILE
- TABLE 5 BIOCHEMISTRY OF MALE MICE IN THE 13-WEEK INHALATION STUDY OF PROPIONONITRILE
- TABLE 6 ORGAN WEIGHTS OF FEMALE MICE IN THE 13-WEEK INHALATION STUDY OF PROPIONONITRILE

TABLE 1 SURVIVAL ANIMAL NUMBERS AND BODY WEIGHT CHANGES OF MALE MICE IN THE 13-WEEK INHALATION STUDY OF PROPIONONITRILE

Week-Day on Study	0ppm		3ppm			6ppm			12ppm			25ppm			50ppm		
	Av.Wt. <10>	No.of Surviv. <10>	Av.Wt.	% of cont. <10>	No.of Surviv. <10>	Av.Wt.	% of cont. <10>	No.of Surviv. <10>	Av.Wt.	% of cont. <10>	No.of Surviv. <10>	Av.Wt.	% of cont. <10>	No.of Surviv. <10>	Av.Wt.	% of cont. <10>	No.of Surviv. <10>
0-0	23.4 (10)	10/10	23.4 (10)	100	10/10	23.4 (10)	100	10/10	23.4 (10)	100	10/10	23.4 (10)	100	10/10	23.4 (10)	100	10/10
1-7	24.7 (10)	10/10	24.8 (10)	100	10/10	24.7 (10)	100	10/10	25.0 (10)	101	10/10	25.1 (10)	102	10/10	24.8 (10)	100	10/10
2-7	26.0 (10)	10/10	25.7 (10)	99	10/10	25.8 (10)	99	10/10	26.1 (10)	100	10/10	25.7 (10)	99	10/10	25.7 (10)	99	10/10
3-7	26.2 (10)	10/10	25.7 (10)	98	10/10	26.1 (10)	100	10/10	26.4 (10)	101	10/10	25.9 (10)	99	10/10	26.0 (10)	99	10/10
4-7	26.9 (10)	10/10	26.0 (10)	97	10/10	26.6 (10)	99	10/10	26.2 (10)	97	10/10	26.4 (10)	98	10/10	26.2 (10)	97	10/10
5-7	27.7 (10)	10/10	26.9 (10)	97	10/10	27.2 (10)	98	10/10	27.4 (10)	99	10/10	26.6 (10)	96	10/10	26.8 (10)	97	10/10
6-7	27.8 (10)	10/10	27.2 (10)	98	10/10	27.3 (10)	98	10/10	27.3 (10)	98	10/10	27.2 (10)	98	10/10	27.0 (10)	97	10/10
7-7	28.6 (10)	10/10	27.6 (10)	97	10/10	27.7 (10)	97	10/10	27.9 (10)	98	10/10	27.6 (10)	97	10/10	27.6 (10)	97	10/10
8-7	28.8 (10)	10/10	27.9 (10)	97	10/10	28.2 (10)	98	10/10	28.2 (10)	98	10/10	28.0 (10)	97	10/10	27.9 (10)	97	10/10
9-7	29.1 (10)	10/10	28.2 (10)	97	10/10	28.4 (10)	98	10/10	28.7 (10)	99	10/10	28.1 (10)	97	10/10	28.1 (10)	97	10/10
10-7	29.9 (10)	10/10	29.0 (10)	97	10/10	28.8 (10)	96	10/10	29.2 (10)	98	10/10	28.7 (10)	96	10/10	28.5 (10)	95	10/10
11-7	30.5 (10)	10/10	29.4 (10)	96	10/10	29.8 (10)	98	10/10	30.0 (10)	98	10/10	29.2 (10)	96	10/10	29.2 (10)	96	10/10
12-7	31.2 (10)	10/10	30.0 (10)	96	10/10	30.1 (10)	96	10/10	30.6 (10)	98	10/10	30.1 (10)	96	10/10	29.6 (10)	95	10/10
13-7	31.7 (10)	10/10	30.3 (10)	96	10/10	30.5 (10)	96	10/10	31.3 (10)	99	10/10	30.8 (10)	97	10/10	30.1 (10)	95	10/10

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

TABLE 2 SURVIVAL ANIMAL NUMBERS AND BODY WEIGHT CHANGES OF FEMALE MICE IN THE 13-WEEK INHALATION STUDY OF PROPIONONITRILE

Week-Day on Study	0ppm		3ppm			6ppm			12ppm			25ppm			50ppm		
	Av.Wt.	No.of Surviv. <10>	Av.Wt.	% of cont. <10>	No.of Surviv.	Av.Wt.	% of cont. <10>	No.of Surviv.	Av.Wt.	% of cont. <10>	No.of Surviv.	Av.Wt.	% of cont. <10>	No.of Surviv.	Av.Wt.	% of cont. <10>	No.of Surviv.
0-0	18.9 (10)	10/10	18.9 (10)	100	10/10	18.9 (10)	100	10/10	18.9 (10)	100	10/10	18.9 (10)	100	10/10	18.9 (10)	100	10/10
1-7	19.8 (10)	10/10	20.4 (10)	103	10/10	20.1 (10)	102	10/10	20.2 (10)	102	10/10	20.1 (10)	102	10/10	20.1 (10)	102	10/10
2-7	20.9 (10)	10/10	21.4 (10)	102	10/10	20.9 (10)	100	10/10	20.8 (10)	100	10/10	21.1 (10)	101	10/10	21.0 (10)	100	10/10
3-7	21.6 (10)	10/10	21.8 (10)	101	10/10	21.9 (10)	101	10/10	21.6 (10)	100	10/10	21.5 (10)	100	10/10	21.3 (10)	99	10/10
4-7	22.3 (10)	10/10	22.5 (10)	101	10/10	22.3 (10)	100	10/10	22.0 (10)	99	10/10	21.8 (10)	98	10/10	21.8 (10)	98	10/10
5-7	22.5 (10)	10/10	23.2 (10)	103	10/10	22.8 (10)	101	10/10	22.9 (10)	102	10/10	22.1 (10)	98	10/10	22.2 (10)	99	10/10
6-7	23.0 (10)	10/10	23.8 (10)	103	10/10	23.2 (10)	101	10/10	23.5 (10)	102	10/10	23.3 (10)	101	10/10	23.1 (10)	100	10/10
7-7	23.2 (10)	10/10	24.1 (10)	104	10/10	23.9 (10)	103	10/10	23.6 (10)	102	10/10	23.1 (10)	100	10/10	23.8 (10)	103	10/10
8-7	23.9 (10)	10/10	24.2 (10)	101	10/10	24.0 (10)	100	10/10	23.9 (10)	100	10/10	23.5 (10)	98	10/10	23.7 (10)	99	10/10
9-7	23.4 (10)	10/10	24.7 (10)	106	10/10	23.7 (10)	101	10/10	23.8 (10)	102	10/10	23.7 (10)	101	10/10	24.1 (10)	103	10/10
10-7	24.1 (10)	10/10	25.0 (10)	104	10/10	24.1 (10)	100	10/10	24.5 (10)	102	10/10	24.2 (10)	100	10/10	24.6 (10)	102	10/10
11-7	24.1 (10)	10/10	25.6 (10)	106	10/10	24.9 (10)	103	10/10	24.5 (10)	102	10/10	24.5 (10)	102	10/10	24.6 (10)	102	10/10
12-7	24.8 (10)	10/10	25.6 (10)	103	10/10	25.2 (10)	102	10/10	25.3 (10)	102	10/10	25.5 (10)	103	10/10	24.9 (10)	100	10/10
13-7	24.8 (10)	10/10	26.1 (10)	105	10/10	25.3 (10)	102	10/10	25.6 (10)	103	10/10	25.1 (10)	101	10/10	25.5 (10)	103	10/10

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

TABLE 3 FOOD CONSUMPTION CHANGES OF MALE MICE IN THE 13-WEEK INHALATION STUDY OF PROPIONONITRILE

Week-Day on Study	0ppm			3ppm			6ppm			12ppm			25ppm			50ppm		
	Av.Fc. <10>	No.of Surviv. <10>		Av.Fc. <10>	% of cont. <10>	No.of Surviv. <10>	Av.Fc. <10>	% of cont. <10>	No.of Surviv. <10>	Av.Fc. <10>	% of cont. <10>	No.of Surviv. <10>	Av.Fc. <10>	% of cont. <10>	No.of Surviv. <10>	Av.Fc. <10>	% of cont. <10>	No.of Surviv. <10>
1-7	4.3 (10)	10/10		4.3 (10)	100	10/10	4.4 (10)	102	10/10	4.4 (10)	102	10/10	4.4 (10)	102	10/10	4.3 (10)	100	10/10
2-7	4.2 (10)	10/10		4.3 (10)	102	10/10	4.3 (10)	102	10/10	4.4 (10)	105	10/10	4.1 (10)	98	10/10	4.2 (10)	100	10/10
3-7	4.0 (10)	10/10		4.1 (10)	103	10/10	4.1 (10)	103	10/10	4.3 (10)	108	10/10	3.9 (10)	98	10/10	4.0 (10)	100	10/10
4-7	4.3 (10)	10/10		4.3 (10)	100	10/10	4.3 (10)	100	10/10	4.3 (10)	100	10/10	4.1 (10)	95	10/10	4.4 (10)	102	10/10
5-7	4.2 (10)	10/10		4.4 (10)	105	10/10	4.4 (10)	105	10/10	4.4 (10)	105	10/10	4.1 (10)	98	10/10	4.3 (10)	102	10/10
6-7	4.3 (10)	10/10		4.4 (10)	102	10/10	4.5 (10)	105	10/10	4.4 (10)	102	10/10	4.2 (10)	98	10/10	4.3 (10)	100	10/10
7-7	4.3 (10)	10/10		4.5 (10)	105	10/10	4.6 (10)	107	10/10	4.5 (10)	105	10/10	4.3 (10)	100	10/10	4.3 (10)	100	10/10
8-7	4.3 (10)	10/10		4.5 (10)	105	10/10	4.6 (10)	107	10/10	4.5 (10)	105	10/10	4.3 (10)	100	10/10	4.2 (10)	98	10/10
9-7	4.3 (10)	10/10		4.5 (10)	105	10/10	4.6 (10)	107	10/10	4.6 (10)	107	10/10	4.2 (10)	98	10/10	4.2 (10)	98	10/10
10-7	4.4 (10)	10/10		4.7 (10)	107	10/10	4.6 (10)	105	10/10	4.7 (10)	107	10/10	4.4 (10)	100	10/10	4.4 (10)	100	10/10
11-7	4.5 (10)	10/10		4.7 (10)	104	10/10	4.8 (10)	107	10/10	4.6 (10)	102	10/10	4.3 (10)	96	10/10	4.4 (10)	98	10/10
12-7	4.6 (10)	10/10		4.6 (10)	100	10/10	4.6 (10)	100	10/10	4.8 (10)	104	10/10	4.4 (10)	96	10/10	4.4 (10)	96	10/10
13-7	4.6 (10)	10/10		4.6 (10)	100	10/10	4.7 (10)	102	10/10	4.8 (10)	104	10/10	4.5 (10)	98	10/10	4.4 (10)	96	10/10

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

TABLE 4 FOOD CONSUMPTION CHANGES OF FEMALE MICE IN THE 13-WEEK INHALATION STUDY OF PROPIONONITRILE

Week-Day on Study	0ppm		3ppm			6ppm			12ppm			25ppm			50ppm		
	Av.Fc. <10>	No.of Surviv. <10>	Av.Fc.	% of cont. <10>	No.of Surviv. <10>	Av.Fc.	% of cont. <10>	No.of Surviv. <10>	Av.Fc.	% of cont. <10>	No.of Surviv. <10>	Av.Fc.	% of cont. <10>	No.of Surviv. <10>	Av.Fc.	% of cont. <10>	No.of Surviv. <10>
1-7	3.8 (10)	10/10	3.9 (10)	103	10/10	3.8 (10)	100	10/10	3.8 (10)	100	10/10	3.8 (10)	100	10/10	3.9 (10)	103	10/10
2-7	3.7 (10)	10/10	3.8 (10)	103	10/10	3.8 (10)	103	10/10	3.7 (10)	100	10/10	3.8 (10)	103	10/10	3.7 (10)	100	10/10
3-7	3.7 (10)	10/10	3.7 (10)	100	10/10	4.0 (10)	108	10/10	3.8 (10)	103	10/10	3.7 (10)	100	10/10	3.5 (10)	95	10/10
4-7	4.0 (10)	10/10	4.0 (10)	100	10/10	4.1 (10)	103	10/10	4.0 (10)	100	10/10	4.0 (10)	100	10/10	3.8 (10)	95	10/10
5-7	3.9 (10)	10/10	4.2 (10)	108	10/10	4.2 (10)	108	10/10	4.2 (10)	108	10/10	3.9 (10)	100	10/10	3.8 (10)	97	10/10
6-7	4.0 (10)	10/10	4.7 (10)	118	10/10	4.4 (10)	110	10/10	4.3 (10)	108	10/10	4.2 (10)	105	10/10	4.2 (10)	105	10/10
7-7	4.1 (10)	10/10	4.3 (10)	105	10/10	4.4 (10)	107	10/10	4.4 (10)	107	10/10	4.1 (10)	100	10/10	4.2 (10)	102	10/10
8-7	4.2 (10)	10/10	4.4 (10)	105	10/10	4.4 (10)	105	10/10	4.5 (10)	107	10/10	4.3 (10)	102	10/10	4.1 (10)	98	10/10
9-7	4.0 (10)	10/10	4.4 (10)	110	10/10	4.3 (10)	108	10/10	4.4 (10)	110	10/10	4.2 (10)	105	10/10	4.2 (10)	105	10/10
10-7	4.2 (10)	10/10	4.4 (10)	105	10/10	4.4 (10)	105	10/10	4.4 (10)	105	10/10	4.3 (5)	102	10/10	4.2 (10)	100	10/10
11-7	4.1 (10)	10/10	4.5 (10)	110	10/10	4.4 (10)	107	10/10	4.3 (10)	105	10/10	4.2 (10)	102	10/10	4.2 (10)	102	10/10
12-7	4.4 (10)	10/10	4.5 (10)	102	10/10	4.5 (10)	102	10/10	4.5 (9)	102	10/10	4.5 (10)	102	10/10	4.3 (10)	98	10/10
13-7	4.2 (10)	10/10	4.7 (10)	112	10/10	4.5 (10)	107	10/10	4.5 (9)	107	10/10	4.2 (10)	100	10/10	4.3 (10)	102	10/10

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

TABLE 5 BIOCHEMISTRY OF MALE MICE IN THE 13-WEEK INHALATION STUDY OF PROPIONONITRILE

Group Name	Control	3 ppm	6 ppm	12 ppm	25 ppm	50 ppm
No. of examined animals	10	10	10	10	10	10
T-cholesterol (mg/dL)	88 ± 11	75 ± 13 *	72 ± 8 **	75 ± 10 *	80 ± 9	81 ± 9
Calcium (mg/dL)	8.6 ± 0.3	8.5 ± 0.2	8.3 ± 0.2 *	8.4 ± 0.2	8.5 ± 0.2	8.6 ± 0.1

Mean ± S.D.
^{*)} Significant difference, p<0.05 (Test of Dunnett)
^{**)} Significant difference, p<0.01 (Test of Dunnett)

TABLE 6 ORGAN WEIGHTS OF FEMALE MICE IN THE 13-WEEK INHALATION STUDY OF PROPIONONITRILE

Group Name	Control	3 ppm	6 ppm	12 ppm	25 ppm	50 ppm
No. of examined animals	10	10	10	10	10	10
Body weight (g)	20.6 ± 1.0	21.5 ± 1.3	20.9 ± 1.0	21.4 ± 1.1	21.3 ± 1.2	21.4 ± 1.2
Kidneys (g)	0.309 ± 0.013	0.319 ± 0.018	0.311 ± 0.016	0.316 ± 0.013	0.314 ± 0.019	0.300 ± 0.017
Kidneys (%)	1.505 ± 0.079	1.483 ± 0.051	1.489 ± 0.032	1.483 ± 0.084	1.474 ± 0.063	1.408 ± 0.080 *

Mean ± S.D.
^{*)} Significant difference, p<0.05 (Test of Dunnett)
^{**)} Significant difference, p<0.01 (Test of Dunnett)