

2,4-ペンタンジオンのマウスを用いた
吸入による 2 週間毒性試験報告書

試験番号：0583

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TABLE 1 CONCENTRATION OF 2,4-PENTANEDIONE IN THE INHALATION CHAMBER OF THE 2-WEEK INHALATION STUDY

Group Name	Concentration(ppm) Mean \pm S.D.
Control	0.0 \pm 0.0
50 ppm	49.8 \pm 1.4
100 ppm	99.1 \pm 2.1
200 ppm	200.3 \pm 3.7
400 ppm	400.4 \pm 4.4
800 ppm	800.1 \pm 6.8

TABLE 2 SURVIVAL ANIMAL NUMBERS AND BODY WEIGHT CHANGES OF MALE MICE IN THE 2-WEEK INHALATION STUDY OF 2,4-PENTANEDIONE

Week-Day on Study	Control		50 ppm			100 ppm			200 ppm			400 ppm			800 ppm		
	Av.Wt.	No.of Surviv.	Av.Wt.	% of cont.	No.of Surviv.	Av.Wt.	% of cont.	No.of Surviv.	Av.Wt.	% of cont.	No.of Surviv.	Av.Wt.	% of cont.	No.of Surviv.	Av.Wt.	% of cont.	No.of Surviv.
	< 5>		< 5>			< 5>			< 5>			< 5>			< 5>		
0-0	24.3 (5)	5/5	24.3 (5)	100	5/5	24.2 (5)	100	5/5	24.2 (5)	100	5/5	24.3 (5)	100	5/5	24.3 (5)	100	5/5
1-2	24.1 (5)	5/5	24.5 (5)	102	5/5	24.6 (5)	102	5/5	24.1 (5)	100	5/5	24.7 (5)	102	5/5	23.3 (5)	97	5/5
1-4	24.2 (5)	5/5	24.5 (5)	101	5/5	24.6 (5)	102	5/5	24.4 (5)	101	5/5	24.7 (5)	102	5/5	23.4 (5)	97	5/5
1-7	25.0 (5)	5/5	25.2 (5)	101	5/5	25.3 (5)	101	5/5	25.1 (5)	100	5/5	25.3 (5)	101	5/5	24.1 (5)	96	5/5
2-3	25.6 (5)	5/5	25.8 (5)	101	5/5	25.6 (5)	100	5/5	25.7 (5)	100	5/5	25.5 (5)	100	5/5	24.0 (5)	94	5/5
2-7	26.1 (5)	5/5	26.3 (5)	101	5/5	26.0 (5)	100	5/5	25.9 (5)	99	5/5	25.9 (5)	99	5/5	24.6 (5)	94	5/5

< > : 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 MICE IN THE 2-WEEK INHALATION STUDY OF 2,4-PENTANEDIONE

Week-Day on Study	Control		50 ppm			100 ppm			200 ppm			400 ppm			800 ppm		
	Av.Wt.	No.of Surviv.	Av.Wt.	% of cont.	No.of Surviv.	Av.Wt.	% of cont.	No.of Surviv.	Av.Wt.	% of cont.	No.of Surviv.	Av.Wt.	% of cont.	No.of Surviv.	Av.Wt.	% of cont.	No.of Surviv.
	< 5>		< 5>			< 5>			< 5>			< 5>			< 5>		
0-0	19.2 (5)	5/5	19.2 (5)	100	5/5	19.2 (5)	100	5/5	19.2 (5)	100	5/5	19.2 (5)	100	5/5	19.2 (5)	100	5/5
1-2	19.9 (5)	5/5	19.5 (5)	98	5/5	19.7 (5)	99	5/5	19.5 (5)	98	5/5	19.4 (5)	97	5/5	17.8 (5)	89	5/5
1-4	20.4 (5)	5/5	19.9 (5)	98	5/5	20.1 (5)	99	5/5	19.9 (5)	98	5/5	20.0 (5)	98	5/5	16.2 (1)	79	1/5
1-7	21.0 (5)	5/5	20.8 (5)	99	5/5	20.7 (5)	99	5/5	20.1 (5)	96	5/5	20.5 (5)	98	5/5	-	-	0/5
2-3	21.2 (5)	5/5	20.9 (5)	99	5/5	21.0 (5)	99	5/5	21.1 (5)	100	5/5	20.4 (5)	96	5/5	-	-	0/5
2-7	21.4 (5)	5/5	21.4 (5)	100	5/5	21.9 (5)	102	5/5	21.6 (5)	101	5/5	21.4 (5)	100	5/5	-	-	0/5

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

TABLE 4 FOOD CONSUMPTION CHANGES OF MALE MICE IN THE 2-WEEK INHALATION STUDY OF 2,4-PENTANEDIONE

Week-Day on Study	Control		50 ppm			100 ppm			200 ppm			400 ppm			800 ppm		
	Av.FC.	No.of Surviv.	Av.FC.	% of cont.	No.of Surviv.	Av.FC.	% of cont.	No.of Surviv.	Av.FC.	% of cont.	No.of Surviv.	Av.FC.	% of cont.	No.of Surviv.	Av.FC.	% of cont.	No.of Surviv.
	< 5>	< 5>	< 5>	< 5>	< 5>	< 5>	< 5>	< 5>	< 5>	< 5>	< 5>	< 5>	< 5>	< 5>	< 5>	< 5>	
1-7	4.5 (5)	5/5	4.5 (5)	100	5/5	4.6 (5)	102	5/5	4.4 (5)	98	5/5	4.4 (5)	98	5/5	3.4 (5)	76	5/5
2-7	4.5 (5)	5/5	4.6 (5)	102	5/5	4.4 (5)	98	5/5	4.5 (5)	100	5/5	4.2 (5)	93	5/5	3.9 (5)	87	5/5

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

TABLE 5 FOOD CONSUMPTION CHANGES OF FEMALE MICE IN THE 2-WEEK INHALATION STUDY OF 2,4-PENTANEDIONE

Week-Day on Study	Control		50 ppm			100 ppm			200 ppm			400 ppm			800 ppm			
	Av.FC.	No.of Surviv.	Av.FC.	% of cont.	No.of Surviv.	Av.FC.	% of cont.	No.of Surviv.	Av.FC.	% of cont.	No.of Surviv.	Av.FC.	% of cont.	No.of Surviv.	Av.FC.	% of cont.	No.of Surviv.	
	< 5>	< 5>	< 5>	< 5>	< 5>	< 5>	< 5>	< 5>	< 5>	< 5>	< 5>	< 5>	< 5>	< 5>	< 5>	< 5>		
1-7	4.1 (5)	5/5	3.9 (5)	95	5/5	4.0 (5)	98	5/5	4.0 (5)	98	5/5	4.0 (5)	98	5/5	-	-	-	0/5
2-7	3.8 (5)	5/5	4.0 (5)	105	5/5	4.0 (5)	105	5/5	4.0 (5)	105	5/5	3.9 (5)	103	5/5	-	-	-	0/5

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

TABLE 6 HEMATOLOGY OF MALE MICE IN THE 2-WEEK INHALATION STUDY OF 2,4-PENTANEDIONE

Group Name	Control	50 ppm	100 ppm	200 ppm	400 ppm	800 ppm
No. of examined animals	5	5	5	4	5	5
RETICULOCYTE (%)	2.1 ± 0.1	2.1 ± 0.2	2.2 ± 0.2	2.4 ± 0.1	2.4 ± 0.2	2.9 ± 0.2 **

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

TABLE 7 ORGAN WEIGHTS OF FEMALE MICE IN THE 2-WEEK INHALATION STUDY OF 2,4-PENTANEDION

Group Name	Control	50 ppm	100 ppm	200 ppm	400 ppm	800 ppm
No. of examined animal	5	5	5	5	5	0
Body weight (g)	17.7 ± 0.5	17.6 ± 0.6	18.2 ± 1.2	17.7 ± 0.3	17.9 ± 0.6	-
Liver (g)	0.735 ± 0.040	0.759 ± 0.025	0.779 ± 0.057	0.786 ± 0.037	0.803 ± 0.043	-
Liver (%)	4.156 ± 0.178	4.309 ± 0.063	4.290 ± 0.069	4.442 ± 0.173 **	4.472 ± 0.123 **	-

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