酢酸イソプロピルのラットを用いた
吸入による2週間毒性試験報告書

試験番号：0551

TABLES

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TABLE 1 SURVIVAL ANIMAL NUMBERS AND BODY WEIGHT CHANGES OF MALE RATS IN THE 2-WEEK INHALATION STUDY OF ISOPROPYL ACETATE

Week-Day on Study	Control Av.Wt.	Control No.of Surviv.	500 ppm Av.Wt.	500 ppm % of cont.	500 ppm No.of Surviv.	1000 ppm Av.Wt.	1000 ppm % of cont.	1000 ppm No.of Surviv.	2000 ppm Av.Wt.	2000 ppm % of cont.	2000 ppm No.of Surviv.	4000 ppm Av.Wt.	4000 ppm % of cont.	4000 ppm No.of Surviv.	8000 ppm Av.Wt.	8000 ppm % of cont.	8000 ppm No.of Surviv.
		< 5>			< 5>			< 5>			< 5>			< 5>			< 5>	
0-0	115 (5)	5/ 5	115 (5)	100	5/ 5	115 (5)	100	5/ 5	114 (5)	99	5/ 5	115 (5)	100	5/ 5	115 (5)	100	5/ 5
1-2	120 (5)	5/ 5	117 (5)	98	5/ 5	119 (5)	99	5/ 5	117 (5)	98	5/ 5	115 (5)	96	5/ 5	104 (5)	87	5/ 5
1-4	123 (5)	5/ 5	120 (5)	98	5/ 5	122 (5)	99	5/ 5	124 (5)	101	5/ 5	121 (5)	98	5/ 5	103 (5)	84	5/ 5
1-7	133 (5)	5/ 5	128 (5)	96	5/ 5	132 (5)	99	5/ 5	135 (5)	102	5/ 5	136 (5)	102	5/ 5	115 (5)	86	5/ 5
2-4	144 (5)	5/ 5	140 (5)	97	5/ 5	143 (5)	99	5/ 5	148 (5)	103	5/ 5	150 (5)	104	5/ 5	122 (5)	85	5/ 5
2-7	154 (5)	5/ 5	148 (5)	96	5/ 5	153 (5)	99	5/ 5	160 (5)	104	5/ 5	166 (5)	108	5/ 5	139 (5)	90	5/ 5

< > : 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 RATS IN THE 2-WEEK INHALATION STUDY OF ISOPROPYL ACETATE

Week-Day on Study	Control Av.Wt.	Control No.of Surviv.	500 ppm Av.Wt.	500 ppm % of cont.	500 ppm No.of Surviv.	1000 ppm Av.Wt.	1000 ppm % of cont.	1000 ppm No.of Surviv.	2000 ppm Av.Wt.	2000 ppm % of cont.	2000 ppm No.of Surviv.	4000 ppm Av.Wt.	4000 ppm % of cont.	4000 ppm No.of Surviv.	8000 ppm Av.Wt.	8000 ppm % of cont.	8000 ppm No.of Surviv.
		< 5>			< 5>			< 5>			< 5>			< 5>			< 5>	
0-0	91 (5)	5/ 5	91 (5)	100	5/ 5	91 (5)	100	5/ 5	91 (5)	100	5/ 5	91 (5)	100	5/ 5	91 (5)	100	5/ 5
1-2	92 (5)	5/ 5	94 (5)	102	5/ 5	93 (5)	101	5/ 5	92 (5)	100	5/ 5	91 (5)	99	5/ 5	84 (5)	91	5/ 5
1-4	95 (5)	5/ 5	96 (5)	101	5/ 5	95 (5)	100	5/ 5	93 (5)	98	5/ 5	93 (5)	98	5/ 5	84 (5)	88	5/ 5
1-7	98 (5)	5/ 5	100 (5)	102	5/ 5	100 (5)	102	5/ 5	99 (5)	101	5/ 5	101 (5)	103	5/ 5	91 (5)	93	5/ 5
2-4	103 (5)	5/ 5	106 (5)	103	5/ 5	104 (5)	101	5/ 5	105 (5)	102	5/ 5	105 (5)	102	5/ 5	93 (5)	90	5/ 5
2-7	108 (5)	5/ 5	111 (5)	103	5/ 5	109 (5)	101	5/ 5	111 (5)	103	5/ 5	114 (5)	106	5/ 5	103 (5)	95	5/ 5

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

TABLE 3 FOOD CONSUMPTION CHANGES OF MALE RATS IN THE 2-WEEK INHALATION STUDY OF ISOPROPYL ACETATE

Week-Day on Study	Control Av.FC.	Control No.of Surviv.	500 ppm Av.FC.	500 ppm % of cont.	500 ppm No.of Surviv.	1000 ppm Av.FC.	1000 ppm % of cont.	1000 ppm No.of Surviv.	2000 ppm Av.FC.	2000 ppm % of cont.	2000 ppm No.of Surviv.	4000 ppm Av.FC.	4000 ppm % of cont.	4000 ppm No.of Surviv.	8000 ppm Av.FC.	8000 ppm % of cont.	8000 ppm No.of Surviv.
	< 5>		< 5>			< 5>			< 5>			< 5>			< 5>			
1-7	13.5 (5)	5/ 5	13.6 (5)	101	5/ 5	14.0 (5)	104	5/ 5	13.6 (5)	101	5/ 5	13.3 (5)	99	5/ 5	9.0 (5)	67	5/ 5
2-7	14.0 (5)	5/ 5	13.9 (5)	99	5/ 5	14.5 (5)	104	5/ 5	14.0 (5)	100	5/ 5	14.5 (5)	104	5/ 5	11.8 (5)	84	5/ 5

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

TABLE 4 FOOD CONSUMPTION CHANGES OF FEMALE RATS IN THE 2-WEEK INHALATION STUDY OF ISOPROPYL ACETATE

Week-Day on Study	Control Av.FC.	Control No.of Surviv.	500 ppm Av.FC.	500 ppm % of cont.	500 ppm No.of Surviv.	1000 ppm Av.FC.	1000 ppm % of cont.	1000 ppm No.of Surviv.	2000 ppm Av.FC.	2000 ppm % of cont.	2000 ppm No.of Surviv.	4000 ppm Av.FC.	4000 ppm % of cont.	4000 ppm No.of Surviv.	8000 ppm Av.FC.	8000 ppm % of cont.	8000 ppm No.of Surviv.
	< 5>		< 5>			< 5>			< 5>			< 5>			< 5>			
1-7	10.7 (5)	5/ 5	11.8 (5)	110	5/ 5	11.1 (5)	104	5/ 5	11.2 (5)	105	5/ 5	10.7 (5)	100	5/ 5	7.9 (5)	74	5/ 5
2-7	10.5 (5)	5/ 5	10.8 (5)	103	5/ 5	10.1 (5)	96	5/ 5	10.5 (5)	100	5/ 5	10.9 (5)	104	5/ 5	9.6 (5)	91	5/ 5

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

TABLE 5　HEMATOLOGY OF MALE RATS IN THE 2-WEEK INHALATION STUDY OF ISOPROPYL ACETATE

Group Name	Control	500 ppm	1000 ppm	2000 ppm	4000 ppm	8000 ppm	
No. of examined animals	5	5	5	5	5	5	
PLATELET ($10^3/\mu$ L)	774 ± 33	738 ± 54	743 ± 24	795 ± 61	803 ± 87	559 ± 44	**

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

TABLE 6　HEMATOLOGY OF FEMALE RATS IN THE 2-WEEK INHALATION STUDY OF ISOPROPYL ACETATE

Group Name	Control	500 ppm	1000 ppm	2000 ppm	4000 ppm	8000 ppm	
No. of examined animals	5	5	5	5	5	5	
PLATELET ($10^3/\mu$ L)	602 ± 24	683 ± 52	616 ± 71	669 ± 35	648 ± 44	470 ± 66	**

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

TABLE 7 BIOCHEMISTRY OF MALE RATS IN THE 2-WEEK INHALATION STUDY OF ISOPROPYL ACETATE

Group Name	Control	500 ppm	1000 ppm	2000 ppm	4000 ppm	8000 ppm
No. of examined animals	5	5	5	5	5	5
GLUCOSE (mg/dL)	143 ± 16	135 ± 4	145 ± 6	137 ± 7	142 ± 11	188 ± 9 **
ALP (IU/L)	624 ± 36	676 ± 60	664 ± 38	657 ± 39	648 ± 85	771 ± 48 **
SODIUM (mEq/L)	142 ± 1	142 ± 1	142 ± 1	142 ± 1	141 ± 1	140 ± 1 *
CHLORIDE (mEq/L)	104 ± 1	103 ± 1	102 ± 1	102 ± 2	101 ± 0 *	100 ± 1 **

Mean ± S.D.

*) Significant difference, $p<0.05$ (Test of Dunnett)

**) Significant difference, $p<0.01$ (Test of Dunnett)

TABLE 8 BIOCHEMISTRY OF FEMALE RATS IN THE 2-WEEK INHALATION STUDY OF ISOPROPYL ACETATE

Group Name	Control	500 ppm	1000 ppm	2000 ppm	4000 ppm	8000 ppm
No. of examined animals	5	5	5	5	5	5
TOTAL PROTEIN (g/dL)	5.5 ± 0.1	5.6 ± 0.2	5.4 ± 0.1	5.5 ± 0.1	5.5 ± 0.1	5.8 ± 0.1 **
GLUCOSE (mg/dL)	133 ± 16	123 ± 19	132 ± 20	128 ± 11	124 ± 17	173 ± 16 **
ALT (IU/L)	32 ± 4	33 ± 4	32 ± 3	30 ± 2	32 ± 4	41 ± 3 **
ALP (IU/L)	534 ± 33	579 ± 37	535 ± 27	580 ± 30	590 ± 38	632 ± 56 **
CHLORIDE (mEq/L)	103 ± 2	104 ± 2	103 ± 1	103 ± 1	103 ± 1	100 ± 1 **

Mean ± S.D.

*) Significant difference, $p<0.05$ (Test of Dunnett)

**) Significant difference, $p<0.01$ (Test of Dunnett)

TABLE 9 ORGAN WEIGHTS OF MALE RATS IN THE 2-WEEK INHALATION STUDY OF ISOPROPYL ACETATE

Group Name	Control	500 ppm	1000 ppm	2000 ppm	4000 ppm	8000 ppm
No. of examined animals	5	5	5	5	5	5
Body weight (g)	137 ± 3	133 ± 7	137 ± 4	143 ± 8	150 ± 8 *	123 ± 6 *
Thymus (g)	0.296 ± 0.029	0.274 ± 0.029	0.261 ± 0.014	0.280 ± 0.035	0.284 ± 0.029	0.155 ± 0.018 **
Thymus (%)	0.217 ± 0.022	0.206 ± 0.022	0.190 ± 0.007	0.196 ± 0.022	0.190 ± 0.014	0.126 ± 0.013 **
Adrenals (g)	0.038 ± 0.002	0.039 ± 0.005	0.037 ± 0.002	0.038 ± 0.004	0.039 ± 0.002	0.046 ± 0.004 **
Adrenals (%)	0.027 ± 0.002	0.030 ± 0.003	0.027 ± 0.002	0.026 ± 0.002	0.026 ± 0.002	0.037 ± 0.002 **
Testes (g)	2.060 ± 0.203	2.213 ± 0.141	2.252 ± 0.118	2.198 ± 0.214	2.378 ± 0.163	2.109 ± 0.159
Testes (%)	1.505 ± 0.135	1.666 ± 0.043	1.640 ± 0.088	1.533 ± 0.130	1.587 ± 0.059	1.709 ± 0.094 *
Heart (g)	0.577 ± 0.013	0.575 ± 0.035	0.604 ± 0.046	0.593 ± 0.020	0.641 ± 0.036 *	0.596 ± 0.030
Heart (%)	0.422 ± 0.014	0.432 ± 0.010	0.439 ± 0.024	0.414 ± 0.012	0.428 ± 0.010	0.483 ± 0.017 **
Lungs (g)	0.687 ± 0.022	0.671 ± 0.042	0.666 ± 0.024	0.707 ± 0.053	0.745 ± 0.057	0.656 ± 0.039
Lungs (%)	0.502 ± 0.013	0.505 ± 0.023	0.484 ± 0.009	0.493 ± 0.018	0.497 ± 0.015	0.531 ± 0.015 *
Kidneys (g)	1.145 ± 0.034	1.131 ± 0.057	1.150 ± 0.050	1.198 ± 0.058	1.336 ± 0.082 **	1.220 ± 0.090
Kidneys (%)	0.837 ± 0.012	0.852 ± 0.022	0.838 ± 0.030	0.836 ± 0.029	0.891 ± 0.010 **	0.988 ± 0.036 **
Spleen (g)	0.325 ± 0.015	0.313 ± 0.015	0.320 ± 0.017	0.337 ± 0.021	0.348 ± 0.025	0.243 ± 0.013 **
Spleen (%)	0.238 ± 0.010	0.236 ± 0.009	0.233 ± 0.011	0.235 ± 0.007	0.233 ± 0.017	0.197 ± 0.006 **
Liver (g)	4.154 ± 0.157	4.008 ± 0.223	4.180 ± 0.238	4.398 ± 0.230	4.998 ± 0.357 **	4.854 ± 0.270 **
Liver (%)	3.036 ± 0.082	3.018 ± 0.071	3.041 ± 0.087	3.068 ± 0.023	3.335 ± 0.057 **	3.933 ± 0.051 **
Brain (g)	1.681 ± 0.024	1.651 ± 0.027	1.638 ± 0.025	1.673 ± 0.038	1.692 ± 0.031	1.588 ± 0.037 **
Brain (%)	1.229 ± 0.022	1.246 ± 0.077	1.193 ± 0.030	1.170 ± 0.072	1.132 ± 0.059	1.289 ± 0.064

Mean ± S.D.

*) Significant difference, $p<0.05$ (Test of Dunnett)

**) Significant difference, $p<0.01$ (Test of Dunnett)

TABLE10 ORGAN WEIGHTS OF FEMALE RATS IN THE 2-WEEK INHALATION STUDY OF ISOPROPYL ACETATE

Group Name	Control	500 ppm	1000 ppm	2000 ppm	4000 ppm	8000 ppm
No. of examined animals	5	5	5	5	5	5
Body weight (g)	96 ± 3	99 ± 6	97 ± 3	99 ± 5	102 ± 8	92 ± 5
Thymus (g)	0.227 ± 0.014	0.242 ± 0.020	0.240 ± 0.017	0.259 ± 0.043	0.230 ± 0.049	0.136 ± 0.011
Thymus (%)	0.236 ± 0.016	0.244 ± 0.008	0.246 ± 0.019	0.261 ± 0.038	0.223 ± 0.033	0.148 ± 0.015 **
Adrenals (g)	0.038 ± 0.003	0.042 ± 0.007	0.041 ± 0.002	0.041 ± 0.002	0.043 ± 0.006	0.052 ± 0.004 **
Adrenals (%)	0.039 ± 0.003	0.042 ± 0.005	0.042 ± 0.003	0.042 ± 0.003	0.042 ± 0.005	0.056 ± 0.003 **
Heart (g)	0.431 ± 0.017	0.442 ± 0.029	0.454 ± 0.026	0.456 ± 0.026	0.491 ± 0.072	0.492 ± 0.031
Heart (%)	0.448 ± 0.027	0.448 ± 0.012	0.466 ± 0.013	0.460 ± 0.028	0.478 ± 0.038	0.533 ± 0.013 **
Kidneys (g)	0.848 ± 0.026	0.851 ± 0.072	0.883 ± 0.034	0.879 ± 0.037	0.948 ± 0.068 *	0.945 ± 0.060 *
Kidneys (%)	0.880 ± 0.018	0.860 ± 0.027	0.907 ± 0.037	0.886 ± 0.022	0.926 ± 0.024 *	1.025 ± 0.017 **
Spleen (g)	0.234 ± 0.019	0.233 ± 0.025	0.241 ± 0.010	0.241 ± 0.027	0.243 ± 0.026	0.180 ± 0.016 **
Spleen (%)	0.243 ± 0.015	0.235 ± 0.013	0.247 ± 0.007	0.242 ± 0.018	0.237 ± 0.008	0.195 ± 0.010 **
Liver (g)	2.908 ± 0.140	2.993 ± 0.244	2.997 ± 0.140	3.202 ± 0.251	3.407 ± 0.271 *	3.727 ± 0.324 **
Liver (%)	3.016 ± 0.090	3.027 ± 0.077	3.078 ± 0.114	3.227 ± 0.168	3.330 ± 0.160 **	4.038 ± 0.185 **

Mean ± S.D.

*) Significant difference, $p<0.05$ (Test of Dunnett)

**) Significant difference, $p<0.01$ (Test of Dunnett)