

Summary of results (Benzophenone)

Gneration		Dam: F0 Offspring: F1						
Dose (mg/kg)		0	0.002	0.01	0.05	20	100	
Number of pregnant females		12	12	12	12	12	12	
F0 and lactation period	Clinical findings	NAD	12/12	12/12	12/12	12/12	12/12	12/12
	Found dead		0/12	0/12	0/12	0/12	0/12	0/12
	Body weights (g)	GD 21	388 ±18.2	407 ±17.9	411 ±22.9	411 ±20.0	412 ±25.2	408 ±23.9
		LD 21	306 ±13.0	309 ±12.1	308 ±10.8	316 ±17.0	305 ±21.2	289 ±25.3
	Food consumption (g)	GD 0-4	17.9 ±1.33	18.5 ±2.35	19.5 ±1.56	19.7 ±19.4	17.5 ±2.16	14.6 L ±1.92
		GD 4-7	21.0 ±2.19	21.5 ±1.65	22.0 ±1.95	23.1 ±2.56	21.9 ±2.23	21.6 ±1.85
		GD 7-10	22.8 ±1.37	22.6 ±1.60	22.9 ±1.94	23.8 ±2.59	23.1 ±1.65	23.9 2.48
		GD 10-14	23.5 ±1.95	23.1 ±2.60	24.7 ±1.79	24.3 ±1.52	26.1 H ±1.65	25.3 ±2.10
		GD 14-17	25.7 ±2.21	27.0 ±3.08	26.0 ±6.36	27.7 ±2.52	28.4 ±2.80	28.0 ±1.61
		GD 17-21	21.2 ±3.06	23.4 ±1.74	23.5 ±2.82	22.9 ±2.85	25.7 H ±3.53	25.8 H ±2.33
		LD 0-4	30.8 ±4.62	36.4 ±2.56	35.0 ±3.15	31.6 ±5.87	33.8 ±6.20	30.4 ±4.18
		LD 4-7	45.1 ±3.29	51.0 H ±2.50	50.2 H ±3.50	48.4 ±4.43	51.7 H ±3.04	42.8 ±3.90
		LD 7-10	49.7 ±3.50	56.1 ±10.2	53.8 ±7.34	54.8 ±3.27	53.9 ±4.09	46.6 ±5.41
		LD 10-14	55.7 ±4.14	57.9 ±5.69	56.9 ±4.17	56.9 ±2.33	61.0 ±6.74	51.7 ±6.43
		LD 14-17	60.1 ±6.76	58.7 ±3.34	58.4 ±4.28	57.8 ±4.89	57.6 ±4.37	54.6 ±7.44
		LD 17-21	69.1 ±4.26	74.8 ±6.15	74.4 ±3.95	72.6 ±4.55	73.8 ±3.44	63.7 ±7.81
	Water consumption (g)	GD 0-4	33.1 ±4.4	32.7 ±4.8	32.1 ±3.0	32.8 ±4.7	32.2 ±3.3	30.6 ±8.2
		GD 4-7	36.5 ±4.7	36.4 ±4.5	37.3 ±3.5	38.6 ±5.1	40.8 ±3.7	41.2 ±7.6
		GD 7-10	42.5 ±5.7	40.5 ±4.6	40.9 ±5.3	40.8 ±5.6	44.6 ±4.2	45.4 ±7.5
		GD 10-14	48.6 ±5.6	45.6 ±6.8	47.8 ±5.1	46.4 ±5.3	53.1 ±5.3	53.0 ±8.2
		GD 14-17	48.9 ±7.1	50.1 ±7.4	49.1 ±4.4	47.0 ±4.3	51.8 ±4.9	55.3 ±10.7
		GD 17-21	50.6 ±9.1	53.9 ±9.4	50.9 ±7.0	50.4 ±7.5	56.5 ±7.7	55.1 ±6.5
		LD 0-4	49.3 ±8.0	56.8 ±5.2	54.6 ±4.3	50.3 ±8.3	53.0 H ±10.0	50.5 ±9.3
		LD 4-7	70.6 ±9.0	79.9 ±8.1	76.8 ±10.9	72.8 ±5.2	82.8 ±10.9	66.4 ±7.4
		LD 7-10	84.2 ±15.8	95.9 ±22.1	89.0 ±16.8	88.6 ±14.9	89.6 ±15.5	84.9 ±24.8
		LD 10-14	95.1 ±10.4	102.9 ±16.3	103.9 ±12.4	103.6 ±12.5	101.8 ±12.4	92.3 ±19.0
		LD 14-17	108.4 ±23.6	123.3 ±21.4	116.6 ±18.8	120.2 ±17.4	113.2 ±15.4	105.8 ±21.5
LD 17-21		138.8 ±20.0	163.4 ±28.2	154.9 ±12.1	156.0 ±23.8	146.1 ±15.2	121.6 ±17.5	

H or H :Significantly higher than the control (p < 0.05 and p < 0.01, respectively)

L or L :Significantly lower than the control (p < 0.05 and p < 0.01, respectively)

NAD: Not abnormalty detcted.

Summary of results (continued- 1)

Generation		Dam: F0 Offspring: F1							
Dose (mg/kg)		0	0.002	0.01	0.05	20	100		
Number of pregnant females		3	3	3	3	3	3		
F0	Observations at terminal sacrifice	Number of corpora lutea	18.0 ±1.7	18.3 ±3.2	18.0 ±2.0	20.7 ±0.6	18.7 ±2.1	17.3 ±1.5	
		Number of implants	16.0 ±0.0	16.0 ±2.0	17.3 ±1.2	17.0 ±0.0	16.3 ±0.6	16.0 ±1.0	
		Implantation Index (%)	89.5	88.1	96.7	82.3	88.0	92.4	
		Number of deaths and resorptions	2	1	3	2	6	0	
		Fetal mortality (%)	4.2	2.4	5.8	3.9	12.1	0	
F1	Fetal findings	Number of live fetuses	15.3 ±0.6	15.7 ±2.5	16.3 ±1.2	16.3 ±1.2	14.3 ±1.5	16.0 ±1.0	
		Sex ratio	1.00	1.04	0.88	0.81	1.26	0.71	
		Body weight of female fetuses	4.9 ±0.1	5.0 ±0.2	5.1 ±0.2	5.0 ±0.2	5.1 ±0.2	5.3 ±0.3	
		Body weight of male fetuses	5.3 ±0.1	5.3 ±0.3	5.5 ±0.2	5.4 ±0.1	5.2 ±0.4	5.6 ±0.3	
Number of fetuses		46	47	49	49	43	48		
Visceral examination	Thorax	Thymus	0	0	0	0	0	0	
		Lung	0	0	0	0	0	0	
		Vessels	0	0	0	0	0	0	
		Heart	0	0	0	0	0	0	
		Diaphragme	0	0	0	0	0	0	
	Abdomen	Liver	0	0	0	0	0	0	
		Adrenal gland	0	0	0	0	0	0	
		Kidney	0	0	0	0	0	0	
		Spleen	0	0	0	0	0	0	
		Ureter	0	0	0	0	0	0	
Gonad	0	0	0	0	0	0			
Skeletal examination	Abnormality	Skull	0	0	0	0	0	0	
		Sternebrae	0	0	0	0	0	0	
		Vertebrae	0	0	0	0	0	0	
		Ribs	0	0	0	0	0	0	
		Coxa	0	0	0	0	0	0	
		Fore limbs	0	0	0	0	0	0	
	Hond limbs	0	0	0	0	0	0		
	Variations	Number of 25 pre-sacral vertebrae	0	0	0	0	0	0	
		Number of 12 lib 13	46(100%)	47(100%)	49(100%)	49(100%)	43(100%)	48(100%)	
		14	0	0	0	0	0	0	
		Asymmetric sternebrae	0	0	2(4.1%)	0	6(14.0%)	1(2.1%)	
		Splitting sternebrae	0	0	1(2.0%)	0	0	0	
		Ossification	Number of fetuses with fully ossified cranial bone	46(100%)	47(100%)	49(100%)	49(100%)	43(100%)	48(100%)
			Number of ossified sternebrae	5.00 ±0.10	5.30 ±0.44	4.83 ±0.55	6.00 ±0.06	6.0 ±0.00	5.90 ±0.10
Number of ossified metacarpae			7.77 ±0.25	7.77 0.32	7.70 ±0.52	8.00 ±0.00	7.97 ±0.06	8.00 ±0.00	
Number of ossified metatarsae	8.17 ±0.42		8.13 1.17	6.37 ±1.69	9.30 ±0.61	9.07 ±0.95	9.33 ±0.99		
Number of ossified sacral and caudal vertebrae	9.9 ±0.52		10.1 0.45	10.3 ±0.60	11.9 ±0.61	11.8 ±0.78	11.7 ±0.56		

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L or L :Significantly lower than the control (p < 0.05 and p < 0.01, respectively)

Summary of results (continued- 2)

Generation		Dam: F0 Offspring: F1							
Dose (mg/kg)		0	0.002	0.01	0.05	20	100		
Number of litters		9	9	9	9	9	9		
F0	Delivery	No. of dams, delivered live pups	9	9	9	9	9		
	and maternal behavior	Delivery index (%)	100	100	100	100	100		
		Gestation length (day)	21.9	22.0	22.1	22.1	22.2	23.0 H	
		Number of implantation sites	15.8 ±2.22	15.7 ±2.00	16.2 ±1.72	17.1 ±1.69	15.6 ±1.33	15.3 ±1.12	
Number of pups	LD 0		14.3 ±3.04	14.6 ±1.67	14.6 ±1.67	14.9 ±2.03	14.2 ±1.39	10.8 L ±3.03	
	Gross findings NAD		12/12	12/12	12/12	12/12	12/12	12/12	
	Sex ratio (Male / male + female)		0.87	0.96	0.85	0.96	1.00	1.26	
	Viability (%)		LD 0	99.0	100	99.3	99.4	100	89.9 L
F1	Body weight (g)	female	LD 0	5.6 ±0.56	5.9 ±0.32	5.8 ±0.27	5.9 ±0.28	6.0 ±0.36	6.1 ±0.52
			LD 4	9.1 ±1.36	9.7 ±0.69	9.5 ±0.69	9.3 ±0.74	9.9 ±0.82	10.8 H ±1.24
			LD 7	13.8 ±1.88	14.7 ±0.91	14.4 ±0.99	14.1 ±0.87	14.6 ±1.35	15.5 ±1.82
			LD 14	25.8 ±2.90	26.3 ±1.54	26.4 ±2.10	26.1 ±1.86	26.5 ±1.47	28.4 ±3.36
			LD 21	41.4 ±5.15	42.8 ±2.49	42.9 ±3.20	42.0 ±3.02	43.2 ±2.53	46.3 ±7.44
	Male	LD 0	5.9 ±0.47	6.3 ±0.24	6.2 ±0.31	6.3 ±0.41	6.4 H ±0.27	6.5 H ±0.49	
		LD 4	9.4 ±1.22	10.3 ±0.49	10.3 ±0.89	9.8 ±0.72	10.5 ±0.69	11.2 H ±1.24	
		LD 7	14.2 ±16.3	15.6 ±0.73	15.3 ±1.18	14.8 ±0.47	15.2 ±1.16	15.6 ±2.22	
		LD 14	26.3 ±2.89	28.3 ±1.90	27.9 ±2.15	27.5 ±1.13	27.3 ±1.62	28.2 ±4.39	
		LD 21	42.6 ±4.92	45.7 ±3.09	44.8 ±3.60	43.7 ±2.05	44.2 ±2.72	46.6 ±7.64	
	Anogenital distance (mm)	Male	LD 0	4.10 ±0.23	4.14 ±0.16	4.18 ±0.26	4.33 ±0.39	4.28 H ±0.29	4.61 H ±0.43
			Ratio	2.27 ±0.1	2.25 ±0.09	2.28 ±0.13	2.35 ±0.18	2.30 ±0.15	2.47 H ±0.20
		Female	LD 0	2.06 ±0.12	2.08 ±0.16	2.16 ±0.10	2.17 ±0.24	2.18 ±0.25	2.33 ±0.22
			Ratio	1.16 ±0.07	1.15 ±0.08	1.20 ±0.06	1.20 ±0.12	1.20 ±0.13	1.28 ±0.10
	Residual nipples (%)		55.6	55.6	33.3	33.3	55.6	0.0 L	
	Postnatal development	Incisor eruption (day)		10.7 ±0.71	11.1 ±0.93	11.3 ±0.87	11.4 ±0.73	11.0 ±1.00	10.5 ±0.76
Eyelid opening (day)		16.4 ±0.88	16.0 ±0.71	16.0 ±0.71	15.9 ±0.60	15.8 ±0.97	15.6 ±1.41		
Descensus testis (day)		19.4 ±0.88	19.2 ±0.44	19.4 ±0.73	19.0 ±0.87	19.2 ±0.44	19.3 ±1.04		

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L or L :Significantly lower than the control (p < 0.05 and p < 0.01, respectively)

Summary of results (continued- 3)

Gneration			Dam: F0 Offspring: F1						
Dose (mg/kg)			0	0.002	0.01	0.05	20	100	
Number of litters			3	3	3	3	3	3	
F1	Clinical findings	Anatomy	Male NAD	19/19	15/15	18/18	18/18	19/19	13/13
		group	Female NAD	17/17	20/20	18/18	18/18	17/17	10/10
Reproduction		Male NAD	13/13	18/18	15/15	16/16	18/18	18/18	
		Female NAD	17/17	18/18	19/19	20/20	17/17	13/13	
Sexual development	Male	Preputial separation (day)	36.0 ±0.88	36.7 ±10.3	36.6 ±1.15	37.9 ±1.64	36.7 ±1.57	36.2 ±0.69	
		Female	Vaginal opening (day)	31.3 ±2.17	31.3 ±2.12	30.3 ±1.24	30.6 ±2.03	30.2 ±1.71	30.8 ±1.23
	Estrus cycle: regul	100	95.0	100	100	100	100		
Body weights (g)	Male	Day 21	41.8 ±3.8	46.8 H ±4.0	43.8 ±1.9	41.4 ±2.5	45.6 * c ±3.0	48.6 H ±8.8	
		Day 28	79.3 ±5.7	84.2 ±4.5	80.3 ±3.3	80.5 ±3.1	83.0 ±5.7	87.5 H ±10.9	
		Day 35	129 ±8.5	133 ±6.7	127 ±6.8	128 ±6.2	131 ±8.1	136 ±12.0	
		Day 42	181 ±11.4	187 ±10.9	178 ±12.3	183 ±9.2	184 ±12.1	190 ±14.7	
		Day 49	239 ±13.0	242 ±14.8	232 ±14.1	240 ±15.0	240 ±13.9	245 ±16.2	
		Day 56	291 ±15.5	306 ±14.9	286 ±17.8	297 ±19.2	294 ±18.8	304 ±19.4	
		Day 63	336 ±14.9	357 H ±16.9	338 ±20.8	336 ±20.7	339 ±14.9	345 ±21.8	
		Day 70	369 ±16.3	393 H ±17.9	369 ±26.3	371 ±21.7	372 ±16.6	382 ±22.8	
	Female	Day 21	41.1 ±2.4	42.7 ±3.4	42.1 ±2.2	41.5 ±2.7	44.8 H ±3.4	50.0 H ±7.2	
		Day 28	72.7 ±4.5	75.3 ±3.5	75.0 ±3.2	75.2 ±3.8	77.4 H ±5.9	81.2 H ±6.4	
		Day 35	113 ±4.5	116 ±4.5	112 ±4.7	115 ±6.3	119 H ±6.3	118 ±6.3	
		Day 42	148 ±10.0	150 ±5.5	143 ±7.3	149 ±6.7	155 ±6.5	152 ±14.9	
		Day 49	171 ±10.6	179 H ±7.9	168 ±8.0	175 ±8.3	180 H ±7.6	174 ±15.2	
		Day 56	191 ±10.6	202 H ±7.7	191 ±8.0	196 ±13.5	202 H ±11.0	194 ±17.4	
		Day 63	209 ±13.3	220 H ±7.7	210 ±10.4	216 ±14.9	222 H ±10.0	217 ±18.0	
		Day 70	226 ±12.6	234 ±8.1	226 ±10.9	233 ±14.7	238 H ±12.2	235 ±18.0	

H or H :Significantly higher than the control (p < 0.05 and p < 0.01, respectively)

L or L :Significantly lower than the control (p < 0.05 and p < 0.01, respectively)

Summary of results (continued- 4)

Gneration			Dam: F0 Offspring: F1					
Dose (mg/kg)			0	0.002	0.01	0.05	20	100
Number of litters			3	3	3	3	3	3
F1	Mating and fertility	Mating index (%)	100	100	100	100	100	100
		Fertility (%)	100	100	100	100	100	100
Observations at terminal sacrifice		Male	100	100	100	100	100	100
		Female	100	100	100	100	100	100
		Male	100	100	100	100	100	100
		Female	100	100	100	100	100	100
		Number of Corpora Lutea	18.9 ±3.1	19.8 ±3.0	18.9 ±3.0	19.1 ±4.3	18.8 ±2.4	20.3 ±2.8
Fetal Findings		Number of implants	14.7 ±2.8	15.0 ±1.8	13.8 ±2.3	13.8 ±3.6	14.8 ±1.7	15.5 ±1.4
		Implantation rate(%)	79.0	76.5	74.8	72.9	80.1	77.5
		Number of deaths and resorption	11	16	16	24	12	12
		Fetal mortality	4.1	5.5	7.8	8.9	4.8	5.7
Copulatory behavior		No. of live fetuses	14.1 ±2.7	14.1 ±1.7	12.9 ±3.0	12.6 ±3.8	14.1 ±1.8	14.7 ±1.1
		Sex ratio	1.10	0.98	1.07	1.07	0.98	1.03
		F2 male fetal body weights	5.4 ±0.3	5.4 ±0.2	5.2 ±0.2	5.5 ±0.2	5.5 ±0.3	5.3 ±0.2
		F2 female fetal body weights	5.0 ±0.3	5.0 ±0.2	4.9 ±0.2	5.1 ±0.2	5.1 ±0.3	5.0 ±0.2
		External abnormalities	0	1 a)	0	0	0	0
Gross findings	3 weeks old	Number of mount (Mf)	19.2 ±8.42	12.8 ±10.6	13.4 ±5.56	23.4 ±14.1	20.6 ±14.1	15.8 ±9.36
		Number of intromission (If)	18.2 ±2.67	17.9 ±4.21	16.9 ±2.80	17.9 ±4.16	16.7 ±5.93	18.5 ±6.22
		Number of ejaculatoon (Ef)	3.46 ±0.88	2.72 ±0.96	3.20 ±1.01	3.06 ±0.93	2.67 ±0.91	2.67 ±1.03
		Mount latency (ML)	108 ±106	316 ±283	156 ±97.7	124 ±144	244 ±376	344 ±456
		Intrromission laten (IL)	49.5 ±40.6	92.9 ±114	72.6 ±61.3	67.6 ±48.9	51.0 ±46.6	159 ±406
		Ejaculation latency (EL)	396 ±208	599 ±328	462 ±380	440 ±314	470 ±273	476 ±288
		Post ejaculation Int (PEI)	349 ±71.0	381 ±69.6	370 ±73.3	341 ±57.5	369 ±65.0	353 ±60.6
		Fertility	13/13 100%	17/18 94.4%	15/15 100%	16/16 100%	16/18 88.9%	17/18 94.4%
Gross findings	3 weeks old	male NAD	15/15	18/18	17/17	19/19	15/15	9/9
		female NAD	20/20	16/16	19/19	17/17	21/21	11/11
	10 weeks old	male NAD	19/19	15/15	18/18	18/18	19/19	13/13
		female NAD	17/17	20/20	18/18	18/18	17/17	10/10
	Repro. group	male NAD	13/13	18/18	15/15	16/16	18/18	18/18
		female NAD	17/17	18/18	19/19	20/20	17/17	13/13

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L or L :Significantly lower than the control (p < 0.05 and p < 0.01, respectively)

a): Acrania, open eyelid, protruding

NAD: Not abnormality detected.

Summary of results (continued- 5)

Gneration			Dam: F0 Offspring: F1						
Dose (mg/kg)			0	0.002	0.01	0.05	20	100	
Number of litters			3	3	3	3	3	3	
F1	absolute Organ weights 3 weeks old	Male	Liver(g)	1.923 ±0.282	2.003 ±0.236	1.992 ±0.206	2.042 ±0.323	2.208 ±0.517	2.037 ±0.479
			Brain(mg)	1376 ±92.2	1407 ±59.6	1376 ±39.0	1360 ±62.0	1388 ±72.0	1380 ±73.3
			Pituitary(mg)	1.60 ±0.40	1.61 ±0.43	1.66 ±0.33	1.80 ±0.48	1.99 ±0.70	1.79 ±0.66
			Thyroid(mg)	5.24 ±0.78	5.39 ±1.19	5.43 ±1.22	5.19 ±1.37	5.83 ±1.91	5.46 ±1.06
			Adrenals(mg)	14.7 ±1.91	15.4 ±2.25	15.6 ±3.34	14.6 ±2.50	15.6 ±2.27	15.5 ±3.27
			Kidneys(mg)	541 ±59.0	569 ±49.3	540 ±33.0	561 ±49.6	602 H ±62.1	618 ±124
			Spleen(mg)	156 ±30.5	145 ±20.6	155 ±21.8	139 ±18.5	154 ±18.0	155 ±35.7
			Testes(mg)	190 ±19.8	187 ±20.9	184 ±26.1	188 ±14.6	190 ±16.9	193 ±36.7
			Epididymis(mg)	32.1 ±3.41	30.7 ±3.41	29.4 ±3.50	30.6 ±3.39	32.7 ±4.86	36.0 ±3.79
			Prostate Dorsolaterl lobe(mg)	6.5 ±1.32	6.3 ±1.56	6.3 ±2.61	7.2 ±1.64	7.6 ±2.25	5.8 ±1.64
			Prostate Ventral lobe(mg)	12.5 ±2.05	13.7 ±3.92	11.5 ±3.34	12.5 ±2.98	11.9 ±3.75	10.9 ±4.67
			Seminal vesicle 1) (mg)	9.12 ±0.86	9.31 ±2.05	9.54 ±3.29	9.11 ±1.40	10.6 ±2.74	11.3 ±1.88
			Ductus deferens(m)	14.5 ±1.76	13.5 ±2.64	13.3 ±2.45	14.2 ±1.78	14.8 ±1.56	14.0 ±2.71
			M. Levator ani(mg)	9.86 ±4.73	11.5 ±2.87	11.2 ±4.95	9.58 ±3.37	10.5 ±2.69	10.8 ±4.82
	M. bulbospongiosus (mg)	22.1 ±7.87	18.0 ±5.95	21.6 ±6.39	21.8 ±4.58	22.1 ±5.58	23.3 ±6.24		
	Penis(mg)	38.2 ±4.18	38.8 4.29	35.7 2.50	38.3 3.24	36.6 4.31	37.3 2.37		
	Penis Length(cm)	1.11 ±0.04	1.12 0.06	1.08 0.08	1.12 0.07	1.07 0.06	1.07 0.09		
	Female	Liver(g)	1.883 ±0.251	1.859 ±0.244	1.758 ±0.345	1.884 ±0.296	1.933 ±0.224	2.147 ±0.404	
		Brain(mg)	1315 ±69.7	1353 ±60.0	1340 ±149	1286 ±57.0	1291 ±53.5	1347 ±55.5	
		Pituitary(mg)	1.75 ±0.38	1.64 ±0.41	1.84 ±0.40	1.64 ±0.30	1.58 ±0.32	1.67 ±0.42	
		Thyroid(mg)	5.08 ±1.09	4.94 ±1.29	5.12 ±1.59	4.30 ±0.83	5.29 ±1.16	5.78 ±1.34	
		Adrenals(mg)	13.9 ±2.79	13.9 ±2.08	14.4 ±3.89	12.1 ±1.55	13.3 ±2.12	16.2 ±3.64	
		Kidneys(mg)	551 ±67.5	544 ±62.9	512 ±53.4	523 ±85.7	576 ±60.5	669 H ±61.3	
		Spleen(mg)	144 ±23.5	139 ±18.7	155 ±12.8	137 ±29.5	135 ±33.3	150 ±26.6	
		Ovarys(mg)	7.81 ±1.60	8.07 ±2.07	7.73 ±1.71	7.44 ±1.33	7.86 ±2.15	8.99 ±1.64	
		Uterus(mg)	29.8 ±5.58	29.3 ±7.25	29.0 ±4.90	28.2 ±5.85	28.2 ±6.70	37.6 H ±9.01	

H or H :Significantly higher than the control (p < 0.05 and p < 0.01, respectively)

L or L :Significantly lower than the control (p < 0.05 and p < 0.01, respectively)

1) : Including coagulating glands

Summary of results (continued- 6)

Gneration			Dam: F0 Offspring: F1						
Dose (mg/kg)			0	0.002	0.01	0.05	20	100	
Number of litters			3	3	3	3	3	3	
F1	Relative organ weights 3 weeks old	Male	Liver(%)	4.306 ±0.430	4.418 ±0.692	4.499 ±0.392	4.586 ±0.529	4.823 ±0.928	4.479 ±0.479
			Brain(%×10 ³)	3103 ±288	3102 ±261	3116 ±188	3070 ±129	3055 ±171	3122 ±479
			Pituitary(%×10 ³)	3.62 ±1.01	3.52 ±0.86	3.75 ±0.65	4.05 ±1.00	4.38 ±1.63	3.97 ±1.41
			Thyroid(%×10 ³)	11.7 ±1.24	11.8 ±2.13	12.3 ±2.80	11.7 ±3.08	12.8 ±4.04	12.4 ±3.03
			Adrenals(%×10 ³)	32.8 ±2.36	33.9 ±4.58	35.2 ±7.57	32.8 ±4.92	34.2 ±4.05	34.3 ±4.35
			Kidneys(%×10 ³)	1212 ±73.1	1250 ±80.5	1221 ±71.9	1264 ±69.0	1320 H ±87.1	1363 H ±95.5
			Spleen(%×10 ³)	346 ±44.8	318 ±29.6	349 ±45.4	313 • □ ±29.4	338 ±29.1	339 ±38.3
			Testes(%×10 ³)	426 ±11.4	410 ±21.2	414 ±46.0	424 ±16.0	417 ±23.2	427 ±20.8
			Epididymis(%×10 ³)	72.1 ±5.02	67.5 ±6.90	66.5 ±7.77	68.8 ±5.88	71.9 ±9.94	81.3 • c ±13.4
			Prostate Dorsolateral lobe(%×10 ³)	14.6 ±2.67	13.9 ±3.60	14.2 ±5.50	16.2 ±3.87	16.5 ±4.30	12.6 ±2.14
			Prostate Ventral lobe(%×10 ³)	28.1 ±4.04	29.9 ±7.71	26.0 ±7.85	28.2 6.54	26.1 ±7.84	23.8 ±8.75
			Semimal vesicle 1) (%×10 ³)	20.5 ±1.95	20.4 ±4.30	21.5 ±7.27	20.6 ±3.00	23.2 ±6.02	25.6 ±6.15
			ductus deferens (%×10 ³)	32.6 ±4.02	29.5 5.28	30.0 ±4.57	31.9 ±3.61	32.6 ±3.44	31.0 ±2.82
			M. Levator ani (%×10 ³)	22.1 ±10.3	25.3 ±6.11	25.5 ±11.8	21.4 ±6.54	23.1 ±6.00	23.5 ±9.05
	M. bulbospongiosus (%×10 ³)	49.5 ±16.8	39.4 ±12.4	49.0 ±15.9	49.2 ±9.9	48.6 ±12.0	53.2 ±18.6		
	Penis(%×10 ³)	85.8 ±8.85	85.3 ±8.90	80.7 ±5.00	86.5 ±7.72	80.6 ±10.7	84.2 ±11.1		
	Female	Liver(%)	4.421 ±0.454	4.355 ±0.396	4.098 ±0.708	4.376 ±0.391	4.632 ±0.330	4.656 ±0.588	
		Brain(%×10 ³)	3101 ±225	3191 ±270	3144 ±418	3192 ±218	3114 ±264	2953 ±263	
		Pituitary(%×10 ³)	4.10 ±0.89	3.88 ±1.03	4.30 ±0.95	4.00 ±0.72	3.80 ±0.74	3.67 ±0.86	
		Thyroid(%×10 ³)	11.9 ±2.49	11.6 ±2.90	11.9 ±3.46	11.2 ±2.42	12.7 ±2.55	12.5 ±2.16	
		Adrenals(%×10 ³)	32.7 ±5.94	32.7 ±5.41	33.8 ±9.22	28.8 ±3.11	31.8 ±4.04	34.9 ±4.45	
		Kidneys(%×10 ³)	1294 ±116	1278 ±111	1199 ±118	1197 ±115	1379 H ±66.4	1457 H ±47.4	
		Spleen(%×10 ³)	339 ±49.2	325 ±27.2	362 ±30.6	310 ±46.8	320 ±56.0	326 ±34.0	
		Ovary(%×10 ³)	18.3 ±3.28	18.9 ±4.44	18.0 ±3.67	17.3 ±2.66	18.7 ±4.11	19.5 ±2.45	
		Uterus(%×10 ³)	69.8 ±11.1	69.1 ±16.4	67.7 ±10.6	69.0 ±10.8	67.3 ±12.2	81.0 ±13.7	

H or H :Significantly higher than the control (p < 0.05 and p < 0.01, respectively)

L or L :Significantly lower than the control (p < 0.05 and p < 0.01, respectively)

1) : Including coagulating glands

Summary of results (continued- 7)

Gneration			Dam: F0 Offspring: F1						
Dose (mg/kg)			0	0.002	0.01	0.05	20	100	
Number of litters			3	3	3	3	3	3	
F1	Absolute organ weights	Male	Liver(g)	15.3 ±1.11	17.0 H ±1.23	15.6 ±1.66	15.7 ±1.37	15.0 ±1.21	15.8 ±1.88
			Brain(mg)	1881 ±89.7	1906 ±80.2	1912 ±79.5	1897 ±67.3	1914 ±92.7	1909 ±81.5
			Pituitary(mg)	9.91 ±0.88	11.2 H ±0.86	10.1 ±10.3	10.3 ±10.3	9.83 ±0.91	10.6 ±1.23
			Thyroid(mg)	18.6 ±2.57	20.1 ±4.17	19.2 ±3.71	19.1 ±3.45	20.6 ±2.79	19.4 ±3.13
			Adrenals(mg)	56.3 ±5.02	55.0 ±5.87	53.4 ±4.41	51.7 ±5.96	56.6 ±6.00	60.3 ±6.27
			Kidneys(mg)	3001 ±167	3193 ±199	3027 ±214	3039 ±280	2938 ±193	3038 ±224
			Spleen(mg)	850 ±96.5	885 ±97.2	786 ±84.1	767 L ±75.1	857 ±101	924 ±92.7
			Testes(mg)	2575 ±127	2781 H ±138	2657 ±113	2672 ±186	2690 ±86.7	2773 H ±141
			Epididymis(mg)	776 ±59.3	778 ±62.7	777 ±45.6	755 ±43.3	799 ±51.8	794 ±91.2
			Prostate Dorsolobe(mg)	260 ±50.6	219 ±69.7	238 ±39.6	191 L ±48.9	250 ±44.3	237 ±53.9
			Prostate Ventral lobe(mg)	463 ±74.1	453 ±96.1	417 ±58.8	426 ±70.5	448 ±65.7	467 ±48.7
			Seminal vesicle 1) (mg)	1085 ±108	1168 ±163	1130 ±163	1205 ±134	1177 ±151	1090 ±131
			Ductus deferens(m)	143 ±11.6	133 ±15.0	138 ±12.2	138 ±13.4	148 ±18.2	142 ±14.9
			Ampullary gland(m)	40.4 ±6.87	32.2 L ±8.37	36.1 ±7.36	35.5 ±8.22	36.7 ±7.49	36.8 ±5.17
	M. Levator ani(mg)	235 ±19.4	238 ±21.5	228 ±25.0	228 ±40.8	239 ±32.5	242 ±35.5		
	M. bulbo-spongiosus(mg)	614 ±41.3	612 ±51.0	590 ±54.8	591 ±49.6	620 ±55.4	638 ±72.6		
	Penis(mg)	301 ±23.1	295 ±18.7	287 ±20.9	285 ±29.8	304 ±24.1	282 ±18.7		
	Penis Length(cm)	2.53 ±0.15	2.43 ±0.10	2.43 ±0.16	2.39 L ±0.17	2.47 ±0.11	2.33 L ±0.13		
		Female	Liver(g)	10.5 ±0.96	10.2 ±0.62	10.2 ±0.71	10.2 ±0.64	10.5 ±0.79	10.8 ±1.53
			Brain(mg)	1736 ±71.9	1723 ±66.3	1712 ±99.2	1725 ±95.0	1715 ±92.9	1759 ±57.3
			Pituitary(mg)	9.15 ±0.80	9.62 ±0.77	9.27 ±0.76	9.81 ±0.84	9.29 ±0.66	9.01 ±1.13
			Thyroid(mg)	14.5 ±2.04	16.3 ±2.35	16.0 ±2.23	16.7 ±2.89	15.6 ±2.61	16.6 ±3.08
			Adrenals(mg)	61.8 ±6.10	64.0 ±5.61	62.9 ±6.20	66.8 ±9.07	70.7 H ±6.66	70.5 H ±9.96
			Kidneys(mg)	1714 ±91.5	1778 ±86.6	1777 ±140	1782 ±159	1770 ±119	1808 ±152
			Spleen(mg)	682 ±75.1	683 ±50.6	655 ±47.9	641 ±77.5	719 ±57.6	740 ±119
			Ovarys(mg)	98.3 ±11.0	103 ±13.4	97.1 ±8.11	100 ±10.1	100 ±15.5	110 ±11.9
			Uterus(mg)	681 ±65.8	652 ±88.2	666 ±78.8	672 ±70.9	691 ±82.2	693 ±81.3

H or H :Significantly higher than the control (p < 0.05 and p < 0.01, respectively)

L or L :Significantly lower than the control (p < 0.05 and p < 0.01, respectively)

Summary of results (continued- 8)

Gneration		Dam: F0 Offspring: F1							
Dose (mg/kg)		0	0.002	0.01	0.05	20	100		
Number of litters		3	3	3	3	3	3		
F1	Relative organ weights 10 weeks old	Male	Liver(%)	4.15 ±0.21	4.32 ±0.17	4.21 ±0.27	4.25 ±0.27	4.04 ±0.22	4.14 ±0.34
			Brain(%×10 ³)	510 ±22.3	487 ±32.4	520 ±33.2	513 ±25.7	516 ±36.3	501 ±20.6
			Pituitary(%×10 ³)	2.69 ±0.21	2.85 ±0.23	2.75 ±0.31	2.77 ±0.23	2.59 ±0.23	2.78 ±0.43
			Thyroid(%×10 ³)	5.04 ±0.72	5.12 ±1.11	5.18 ±0.90	5.13 ±0.82	5.29 ±0.82	5.08 ±0.75
			Adrenals(%×10 ³)	15.3 ±12.8	14.0 L ±1.21	14.5 ±1.05	14.0 ±1.48	15.1 ±1.60	15.8 ±1.74
			Kidneys(%×10 ³)	814 ±30.7	813 ±35.7	821 ±42.1	821 ±64.1	803 ±35.0	796 ±42.9
			Spleen(%×10 ³)	230 ±24.5	225 ±20.1	213 ±20.5	207 L ±20.6	229 ±25.2	242 ±20.8
			Testes(%×10 ³)	699 ±31.9	709 ±34.6	722 ±49.2	722 ±49.4	720 ±42.6	729 ±53.7
			Epididymis(%×10 ³)	211 ±15.0	198 ±12.0	211 ±15.5	204 ±14.5	214 ±16.8	208 ±19.2
			Prostate Dorsolateral lobe(%×10 ³)	70.7 ±14.5	55.8 L ±17.5	64.9 ±12.2	51.8 L ±13.7	70.2 ±11.2	62.2 ±13.9
			Prostate Ventral lobe(%×10 ³)	125 ±18.1	115 ±23.2	113 ±16.6	115 ±18.3	118 ±16.3	122 ±12.3
			Semimal vesicle 1) (%×10 ³)	295 ±34.1	298 ±41.3	307 ±44.7	325 ±32.8	303 ±44.6	286 ±29.7
			ductus deferens (%×10 ³)	38.6 ±2.71	33.9 L ±4.15	37.4 ±3.53	37.2 ±4.07	38.7 ±5.68	37.3 ±4.37
			Ampullary gland (%×10 ³)	11.0 ±1.88	8.24 ±2.27	9.81 ±2.12	9.59 ±2.23	9.29 ±2.13	9.63 ±1.26
	M. Levator ani (%×10 ³)	63.7 ±4.69	60.7 ±6.43	61.8 ±6.95	61.6 ±11.6	62.6 ±9.01	63.5 ±9.10		
	M. bulbo-spongiosus(%×10 ³)	167 ±10.5	156 ±14.3	161 ±18.0	160 ±18.0	166 ±16.0	168 ±22.4		
	Penis(%×10 ³)	81.7 ±6.02	75.3 L ±5.58	77.9 ±4.75	77.0 ±8.99	79.8 ±8.04	74.0 ±6.13		
	Female	Liver(%)	4.50 ±0.31	4.36 ±0.19	4.40 ±0.22	4.28 ±0.23	4.37 ±0.21	4.52 ±0.42	
		Brain(%×10 ³)	754 ±40.0	738 ±33.6	738 ±58.6	724 ±59.1	720 ±47.3	739 ±53.9	
		Pituitary(%×10 ³)	4.00 ±0.33	4.12 ±0.31	3.99 ±0.28	4.11 ±0.38	3.89 ±0.27	3.77 ±0.43	
		Thyroid(%×10 ³)	6.30 ±0.95	7.00 ±1.10	6.92 ±1.04	7.02 ±1.32	6.81 ±1.07	7.00 ±1.37	
		Adrenals(%×10 ³)	26.8 ±2.04	27.4 ±2.52	27.1 ±2.61	28.0 ±4.22	27.9 H ±2.70	29.4 ±3.10	
		Kidneys(%×10 ³)	744 ±34.6	762 ±42.1	765 ±52.9	746 ±59.6	731 ±21.3	756 ±26.1	
		Spleen(%×10 ³)	296 ±29.5	293 ±2.3.9	282 ±19.7	269 ±38.3	299 ±13.7	312 ±58.4	
		Ovary(%×10 ³)	42.7 ±4.90	44.2 ±6.11	41.8 ±2.92	42.1 ±5.73	42.0 ±5.77	46.0 ±3.06	
		Uterus(%×10 ³)	296 ±27.6	276 ±36.6	287 ±36.1	282 ±31.9	291 ±42.2	289 ±21.0	

H or H :Significantly higher than the control (p < 0.05 and p < 0.01, respectively)

L or L :Significantly lower than the control (p < 0.05 and p < 0.01, respectively)

Summary of results (continued- 9)

Gneration			Dam: F0 Offspring: F1						
Dose (mg/kg)			0	0.002	0.01	0.05	20	100	
Number of litters			3	3	3	3	3	3	
F1	Histo- pathological findings	3 weeks old	Kidneys NAD	15/15	#	#	#	15/15	9/9
		Male	Testes NAD	15/15	#	#	#	15/15	9/9
			Prostate NAD	15/15	#	#	#	15/15	9/9
	3 weeks old	Kidneys NAD	20/20	#	#	#	#	11/11	
		Female	Uterus NAD	20/20	#	#	#	#	11/11
	10 weeks old	Male	Testes ubule: Degeneration NAD	0/19	0/15	0/18	0/18	0/19	2/13
			Penis NAD	19/19	15/15	18/18	18/18	19/19	13/13
		Ampullary gland Adenocyte: Column change	0/15	3/15	0/18	1/18	0/19	0/13	
	10 weeks old Female	Adrenals NAD	17/17	#	#	18/18	16/16	10/10	
	F0	Hormone concentra tions	dams	Estradiol (pg/mL)	13.6 ±6.92	19.4 ±15.1	12.7 ±6.74	7.30 ±2.22	13.6 ±6.00
F1	10 weeks old Male	Estradiol (pg/mL)	18.5 ±5.99	21.8 ±10.3	15.1 ±5.26	13.3 ±6.18	9.15 _L ±2.82	10.5 ±5.21	
		LOQ ₁ P	0	2	0	7	6	6	
		Testosterone (ng/mL)	3.40 ±0.77	3.29 ±1.09	3.76 ±1.57	3.40 ±1.79	3.01 ±0.79	3.78 ±1.20	
		FSH (ng/mL)	230 ±95.4	231 ±61.9	182 ±65.8	139 _L ±50.0	153 L ±28.5	135 _L ±20.4	
		LH (ng/mL)	9.65 ±2.36	10.8 ±1.68	12.3 _H ±3.23	10.7 ±2.50	13.3 _H ±2.88	17.5 _H ±4.25	
	10 weeks old Female	Estradiol (pg/mL)	102 ±18.3	82.1 ±37.8	116 ±27.4	51.7 _L ±21.4	54.7 _L ±17.6	44.2 _L ±12.5	
		Testosterone (ng/mL)	LOQ ₂	LOQ ₂	LOQ ₂	LOQ ₂	LOQ ₂	LOQ ₂	
		FSH (ng/mL)	78.9 ±24.2	87.7 ±32.1	62.3 ±9.80	64.7 ±15.2	64.9 ±11.1	80.0 ±9.08	
		LH (ng/mL)	8.39 ±3.41	8.30 ±1.38	6.74 ±1.01	7.58 ±1.74	9.47 H ±1.28	12.9 _H ±2.08	
	m-RNA expression	Male	AR	0.0840 ±0.0131	#	#	0.0905 ±0.0159	0.0884 ±0.0165	0.0921 ±0.0184
Female		ER alpha	0.2231 ±0.0484	#	#	0.2423 ±0.0477	0.2259 ±0.0307	0.2483 ±0.0295	

H or H :Significantly higher than the control (p < 0.05 and p < 0.01, respectively)

L or L :Significantly lower than the control (p < 0.05 and p < 0.01, respectively)

LOQ₁ :Below the limit of quantitation (<5.00 pg/mL)

LOQ₂ :Below the limit of quantitation (<2.00 ng/mL)

#: Not examined