

Table 4-3 Physical development test; Preputial separation of offspring -group mean values

Exp.group (mg/kg/day)	n	Age at PPS(day)	Body weights at PPS(g)
Vehicle control	8 (41)	39.8 ± 1.2	204.5 ± 13.0
BPA 0.005	10 (48)	40.0 ± 1.0	206.8 ± 35.0
BPA 0.05	10 (56)	40.3 ± 1.5	204.7 ± 13.3
BPA 40	10 (49)	40.3 ± 1.6	209.7 ± 17.0
BPA 400	9 (45)	40.5 ± 1.5	202.9 ± 14.2
EE 0.05	10 (50)	41.5 ± 1.8 **	200.8 ± 14.7

Mean ± S.D.

**p<0.01 (Dunnnett's test)

n: The numbers without parenthesis represent number of dams and the numbers in parenthesis represent number of pups

Table 4-4 Physical development test; Vaginal opening of offspring - group mean values

Exp.group (mg/kg/day)	n	Age at VO(day)	Body weight at VO(g)
Vehicle control	8 (39)	34.1 ± 3.0	129.5 ± 18.5
BPA 0.005	10 (39)	33.8 ± 2.5	127.0 ± 18.0
BPA 0.05	10 (43)	33.5 ± 2.0	123.0 ± 13.4
BPA 40	10 (50)	33.9 ± 2.3	127.6 ± 14.6
BPA 400	9 (45)	33.9 ± 1.8	123.8 ± 14.0
EE 0.05	10 (50)	33.3 ± 1.7	118.2 ± 12.2 **

Mean ± S.D.

**p<0.01 (Dunnett's test)

n: The numbers without parenthesis represent number of dams and the numbers in parenthesis represent number of pups

Table 5-1 Reproduction test of F1; Copulative confirmation

Exp.group (mg/kg/day)	n	Copulation	(%)
Vehicle control	16	16/16	100.0
BPA 0.005	13	13/13	100.0
BPA 0.05	17	17/17	100.0
BPA 40	18	17/18	94.4
BPA 400	18	18/18	100.0
EE 0.05	19	15/19	78.9

Table 5-2 Reproduction test of F1; fertility and general reproductive performance - group mean values

Exp.group (mg/kg/day)	Vehicle control	BPA 0.005	BPA 0.05	BPA 40	BPA 400	EE 0.05
Number of dams	15	12	17	16	17	16
Number of corpora lutea ^{a)}	259 (17.3 ± 2.31)	189 (15.8 ± 1.60)	283 (16.6 ± 1.84)	276 (17.3 ± 2.41)	311 (18.3 ± 3.57)	286 (17.9 ± 3.20)
Number of implantations ^{a)}	231 (15.4 ± 1.80)	178 (14.8 ± 2.52)	253 (14.9 ± 1.45)	246 (15.4 ± 1.41)	263 (15.5 ± 1.77)	231 (14.4 ± 1.79)
Number of pre-implant losses ^{b)}	28(10.8)	11(5.8)	30(10.6)	30(10.9)	48(15.4)	55(19.2)
Number of resorptions ^{c)}	15(6.5)	23(12.9)	21(8.3)	23(9.3)	12(4.6)	16(6.9)
Early resorptions	15(6.5)	23(12.9)	21(8.3)	23(9.3)	12(4.6)	16(6.9)
Late resorptions	0	0	0	0	0	0
Dead fetuses	0	0	0	0	0	0
Number of live fetuses ^{a)}	216 (14.4 ± 1.68)	155 (12.9 ± 2.81)	232 (13.6 ± 1.17)	223 (13.9 ± 2.02)	251 (14.8 ± 2.44)	215 (13.4 ± 2.00)
Live fetuses						
Sex ratio (male/female)	104 / 112	75 / 80	125 / 107	109 / 114	115 / 136	116 / 99
Body weights ^{d)}						
Male	3.98 ± 0.24	4.05 ± 0.66	4.24 ± 0.64	4.14 ± 0.62	3.85 ± 0.33	4.33 ± 0.92
Female	3.80 ± 0.27	3.96 ± 0.54	4.00 ± 0.68	3.96 ± 0.52	3.68 ± 0.27	4.05 ± 0.92
Placental weights ^{d)}						
Male	0.45 ± 0.03	0.45 ± 0.07	0.45 ± 0.04	0.45 ± 0.06	0.47 ± 0.10	0.46 ± 0.08
Female	0.44 ± 0.03	0.44 ± 0.07	0.42 ± 0.04	0.43 ± 0.04	0.45 ± 0.07	0.44 ± 0.10

a) Value in parentheses represents mean ± S.D. per dam.

b) Value in parentheses represents percentage of the number of corpora lutea.

c) Value in parentheses represents percentage of the number of implantations.

d) Value is mean ± S.D. per dam.

Table 6 Morphometry of the female external genitalia at 10 weeks of age

Exp.group (mg/kg/day)	Length (mm)			
		A	B	C
vehicle control	Mean	1.27	1.14	10.15
	S.D.	0.14	0.15	0.88
	n	6	6	6
BPA 0.005	Mean	1.30	1.22	10.62
	S.D.	0.14	0.24	0.57
	n	6	6	6
BPA 0.05	Mean	1.33	1.16	11.07
	S.D.	0.16	0.14	0.61
	n	7	7	7
BPA 40	Mean	1.16	1.22	10.63
	S.D.	0.21	0.13	1.01
	n	8	8	8
BPA 400	Mean	1.18	1.10	10.19
	S.D.	0.27	0.22	0.82
	n	9	9	9
EE 0.05	Mean	1.79 **	1.91 **	7.92 **
	S.D.	0.44	0.46	1.26
	n	9	9	9

A; Size of urethral slit

B: Distance between tip of phallus and urethral orifice

C: Distance between urethral orifice and vagina

**p<0.01(Dnnnett's test)

Table 7-1 Serum T3 & T4 of male offspring at 10 weeks of age

Exp.group (mg/kg/day)		T4	T3	FT4	FT3
		nmol/L	nmol/L	pmol/L	pmol/L
Vehicle control	Mean	79.43	0.56	9.19	4.49
	S.D.	11.22	0.10	1.68	0.43
	n	7	7	7	7
BPA 0.005	Mean	71.88	0.55	8.20	4.39
	S.D.	6.51	0.22	0.84	0.83
	n	6	6	6	6
BPA 0.05	Mean	71.41	0.61	8.41	4.62
	S.D.	12.13	0.19	1.95	0.72
	n	9 ^{a)}	9 ^{a)}	9 ^{a)}	9 ^{a)}
BPA 40	Mean	73.69	0.56	8.78	4.68
	S.D.	6.01	0.20	1.13	0.73
	n	9	9	9	9
BPA 400	Mean	70.83	0.57	7.88	4.65
	S.D.	7.33	0.11	1.01	0.46
	n	9	9	9	9
EE 0.05	Mean	73.62	0.55	8.19	4.67
	S.D.	8.18	0.10	0.92	0.71
	n	9	9	9	9

a) The data of ID-No.215 were missing

Table 7-2 Serum T3 & T4 of female offspring at 10 weeks of age

Exp.group (mg/kg/day)		T4	T3	FT4	FT3
		nmol/L	nmol/L	pmol/L	pmol/L
Vehicle control	Mean	58.52	0.58	6.39	4.61
	S.D.	8.54	0.14	1.15	0.44
	n	6	6	6	6
BPA 0.005	Mean	53.90	0.62	6.07	4.62
	S.D.	9.67	0.18	1.19	0.65
	n	6	6	6	6
BPA 0.05	Mean	65.53	0.60	8.12	5.02
	S.D.	5.28	0.13	1.19	0.42
	n	7	7	7	7
BPA 40	Mean	59.94	0.55	5.93	4.25
	S.D.	11.97	0.23	2.67	1.73
	n	8	7 a)	7 a)	7 a)
BPA 400	Mean	57.69	0.68	6.75	5.32
	S.D.	14.61	0.09	2.02	0.55
	n	9	9	9	9
EE 0.05	Mean	60.13	0.73	6.69	5.42 *
	S.D.	9.45	0.13	1.28	0.73
	n	9	9	9	9

a) Lack of quantity

*p<0.05 (Dunnett's test)

Table 8-1 Estrus cycle - individual findings

Vehicle control		Months of age				
Animal ID No.	3	4	5	6	7	
501	N	N	N	N	N	
502	N	CD	PD	PD	N	
506	N	N	N	N	Irreg.	
507	N	N	N	N	N	
510	N	N	N	N	N	
511	N	N	N	Irreg.	Irreg.	
512	N	N	N	N	N	
516	N	Irreg.	PD	CD	N	
517	N	N	PE	PE	CE	
521	N	Irreg.	N	N	N	
522	N	N	N	N	N	
526	N	N	N	CD	N	
527	N	PD	N	N	N	
531	N	Irreg.	N	N	N	
532	N	N	N	N	N	
536			dead (13wk)			
537	N	PD	N	PD	Irreg.	

N, normal.

Irreg. Irregular estrus cycle (Unclassifiable)

PD, persistent diestrus (prolonged diestrus periods lasting 5-9 days)

CD, constant diestrus (prolonged diestrus periods lasting 10 days or more)

PE, persistent estrus (prolonged estrus periods lasting 3-7 days)

CE, constant estrus (prolonged estrus periods lasting 8 days or more)

n	3M	4M	5M	6M	7M
Normal cycle	16	16	16	16	16
Abnormal cycle	0	6	3	6	4
Irregular cycle	0	3	0	1	3
Persistent diestrus	0	2	2	2	0
Constant diestrus	0	1	0	2	0
Persistent estrus	0	0	1	1	0
Constant estrus	0	0	0	0	1

Table 8-1 Estrus cycle - individual findings
continued

BPA 0.005 mg/kg/day						
Animal ID No.	Months of age					
	3	4	5	6	7	
540	N	N	N	N	N	N
541	N	N	N	N	N	N
545	N	N	N	N	N	N
546	Irreg.	CD	CD	CD	Irreg.	
547						
551	N	N	N	PE	PE	
552	Irreg.	PD	PD	CD	Irreg.	
553						
554	N	N	PE	CD	PE	
556	N	N	Irreg.	CD	CE	
557	N	PD	PD	PD	PE	
561	N	N	PD	PD	PE	
562	N	N	dead (25wk)	PD		
563	N	N		N	PE	
564	N	N		N	Irreg.	
565	N	N		PD	Irreg.	
569	N	N		N	N	
570	N	N	N	PD	N	
574	N	N	N	N	N	
575	N	N	N	N	PD	

N, normal.

Irreg. Irregular estrus cycle (Unclassifiable)

PD, persistent diestrus (prolonged diestrus periods lasting 5-9 days)

CD, constant diestrus (prolonged diestrus periods lasting 10 days or more)

PE, persistent estrus (prolonged estrus periods lasting 3-7 days)

CE, constant estrus (prolonged estrus periods lasting 8 days or more)

n	3M	4M	5M	6M	7M
Normal cycle	18	17	11	9	6
Abnormal cycle	2	3	8	10	13

Irregular cycle	2	0	1	0	4
Persistent diestrus	0	2	5	3	1
Constant diestrus	0	1	1	6	0
Persistent estrus	0	0	1	1	7
Constant estrus	0	0	0	0	1

Table 8-1 Estrus cycle - individual findings
continued
BPA 0.05mg/kg/day

Animal ID No.	Months of age						
	3	4	5	6	7		
579	N	N	N	N	N	N	
580	N	N	N	N	N	N	
581	N	N	N	Irreg.	N	N	
584	N	N	N	N	N	N	
585	N	N	N	PD	PD	N	
589	N	N	PD	PD	PD	N	
590	N	N	N	PD	PD	Irreg.	
593	N	N	N	N	N	N	
594	N	N	N	N	N	N	
598	N	N	N	N	PE	N	
599	N	N	N	N	N	N	
603	N	N	N	N	N	Irreg.	
604	N	N	N	N	N	Irreg.	
608	PD	PD	PD	PD	PD	Irreg.	
609	Irreg.	Irreg.	Irreg.	PD	PD	Irreg.	
613	N	N	CD	CD	CD	PE	
614	N	N	N	N	N	Irreg.	
618	N	N	N	N	N	Irreg.	
619	N	N	N	N	N	N	

N, normal.

Irreg. Irregular estrus cycle (Unclassifiable)

PD, persistent diestrus (prolonged diestrus periods lasting 5-9 days)

CD, constant diestrus (prolonged diestrus periods lasting 10 days or more)

PE, persistent estrus (prolonged estrus periods lasting 3-7 days)

CE, constant estrus (prolonged estrus periods lasting 8 days or more)

n	3M	4M	5M	6M	7M
Normal cycle	19	19	19	19	19
Abnormal cycle	17	17	15	12	10
	2	2	4	7	9

Irregular cycle	1	1	1	1	7
Persistent diestrus	1	1	2	5	0
Constant diestrus	0	0	1	1	0
Persistent estrus	0	0	0	0	2
Constant estrus	0	0	0	0	0

Table 8-1 Estrus cycle - individual findings
continued
BPA 40mg/kg/day

Animal ID No.	Months of age				
	3	4	5	6	7
623	PD	N	N	N	Irreg.
624	N	N	N	N	N
627	N	N	N	N	N
628	N	N	CD	CD	Irreg.
631	PD	N	N	N	Irreg.
632	N	N	N	N	CE
636	N	Irreg.	CD	CD	PE
637	N	CD	CD	PD	Irreg.
638	CD	CD	CD	CD	Irreg.
639	N	N	N	N	Irreg.
643	N	N	N	N	N
644	N	N	N	N	N
648	N	N	N	PD	Irreg.
649	N	CD	N	N	N
653	N	N	N	N	Irreg.
654	N	N	CD	CD	Irreg.
658	N	N	N	N	N
659	N	N	CD	N	N
663	N	N	N	N	PE
664	N	N	N	N	N
666	N	N	PD	N	N
668	N	N	N	N	N
669	N	CD	N	CD	Irreg.
671	N	N	N	N	N

N, normal.

Irreg. Irregular estrus cycle (Unclassifiable)

PD, persistent diestrus (prolonged diestrus periods lasting 5-9 days)

CD, constant diestrus (prolonged diestrus periods lasting 10 days or more)

PE, persistent estrus (prolonged estrus periods lasting 3-7 days)

CE, constant estrus (prolonged estrus periods lasting 8 days or more)

		3M	4M	5M	6M	7M
n		24	24	24	24	24
Normal cycle		21	19	17	17	11
Abnormal cycle		3	5	7	7	13

Irregular cycle	0	1	0	0	0	10
Persistent diestrus	2	0	1	2	0	0
Constant diestrus	1	4	6	5	0	0
Persistent estrus	0	0	0	0	0	2
Constant estrus	0	0	0	0	0	1

Table 8-1 Estrus cycle - individual findings

continued

BPA 400mg/kg/day

Animal ID No.	Months of age						
	3	4	5	6	7		
673	N	N	CD	N	Ireg.	Ireg	
674	N	N	Ireg.	Irreg.	PE	PE	
678	N	PD	CD	PD	PD	PD	
679	Ireg.	N	PD	N	N	N	
683	N	N	PD	CD	PE	PE	
684	N	N	N	N	Ireg.	Ireg.	
688	N	N	N	N	PE	PE	
689	N	N	Ireg.	PD	PE	PE	
693	N	Ireg.		dead (22 wk)			
694	N	N	N	N	CD	CD	
698	N	N	PD	N	N	N	
699	N	CD	CD	CD	PE	PE	
703	N	N	N	N	N	N	
704	CE	PD	CD	PD	PE	PE	
708	PD	N	PD	PD	N	N	
709	N	N	PD	CD	Ireg.	Ireg.	
713	N	CD	PD	N	PE	PE	
714	N	N	N	N	N	N	

N, normal.

Ireg. Irregular estrus cycle (Unclassifiable)

PD, persistent diestrus (prolonged diestrus periods lasting 5-9 days)

CD, constant diestrus (prolonged diestrus periods lasting 10 days or more)

PE, persistent estrus (prolonged estrus periods lasting 3-7 days)

CE, constant estrus (prolonged estrus periods lasting 8 days or more)

n	3M	4M	5M	6M	7M
Normal cycle	18	18	17	17	17
Abnormal cycle	15	13	5	9	5
	3	5	12	8	12
Irregular cycle	1	1	2	1	3
Persistent diestrus	1	2	6	4	1
Constant diestrus	0	2	4	3	1
Persistent estrus	0	0	0	0	7
Constant estrus	1	0	0	0	0

Table 8-1 Estrus cycle - individual findings
continued
EE 0.05mg/kg/day

Animal ID No.	Months of age					
	3	4	5	6	7	
718	N	N	PD	CD	PE	
719	N	N	N	Irreg.	PE	
723	CD	CD	PD	CD	Irreg.	
724	CD	CD	CD	CD	PE	
728	N	N	N	N	PE	
729	N	N	N	N	CD	
733	PD	N	PD	CD	CD	
734	N	CD	PD	PD	CD	
738	N	N	PE	CD	CD	
739	N	N	PD	CD	PD	
743	PD	CD	PE	CE	CE	
744	Irreg.	CD	CD	CD	PE	
748	N	N	N	CD	PE	
749	N	N	N	PE	PE	
753	PD	N	N	PD	CE	
754	N	PD	CD	PD	PE	
758	PD	PD	CD	CD	CD	
759	N	PD	CD	N	PD	
760	N	N	N	N	N	
761	N	N	N	PD	N	
765	N	CD	Irreg.	CD	CD	
766	CD	N	CD	PD	CD	

N, normal.

Irreg. Irregular estrus cycle (Unclassifiable)

PD, persistent diestrus (prolonged diestrus periods lasting 5-9 days)

CD, constant diestrus (prolonged diestrus periods lasting 10 days or more)

PE, persistent estrus (prolonged estrus periods lasting 3-7 days)

CE, constant estrus (prolonged estrus periods lasting 8 days or more)

		3M	4M	5M	6M	7M
n		22	22	22	22	22
Normal cycle		14	13	8	4	2
Abnormal cycle		8	9	14	18	20
Irregular cycle		1	0	1	1	1
Persistent diestrus		4	3	5	5	2
Constant diestrus		3	6	6	10	7
Persistent estrus		0	0	2	1	8
Constant estrus		0	0	0	1	2

Table 8-2 Summary of estrus cycle

	mg/kg/day											
	Vehicle control		BPA 0.005		BPA 0.05		BPA 40		BPA 400		EE 0.05	
3 months of age												
Normal cycle	16 / 16	100.0	18 / 20	90.0	17 / 19	89.5	21 / 24	87.5	15 / 18	83.3	14 / 22	63.6
Abnormal cycle	0 / 16	0.0	2 / 20	10.0	2 / 19	10.5	3 / 24	12.5	3 / 18	16.7	8 / 22**	36.4
irregular cycle	0 / 16	0.0	2 / 20	10.0	1 / 19	5.3	0 / 24	0.0	1 / 18	5.6	1 / 22	4.5
Persistent diestrus	0 / 16	0.0	0 / 20	0.0	1 / 19	5.3	2 / 24	8.3	1 / 18	5.6	4 / 22	18.2
Constant diestrus	0 / 16	0.0	0 / 20	0.0	0 / 19	0.0	1 / 24	4.2	0 / 18	0.0	3 / 22	13.6
Persistent estrus	0 / 16	0.0	0 / 20	0.0	0 / 19	0.0	0 / 24	0.0	0 / 18	0.0	0 / 22	0.0
Constant estrus	0 / 16	0.0	0 / 20	0.0	0 / 19	0.0	0 / 24	0.0	1 / 18	5.6	0 / 22	0.0
4 months of age												
Normal cycle	10 / 16	62.5	17 / 20	85.0	17 / 19	89.5	19 / 24	79.2	13 / 18	72.2	13 / 22	59.1
Abnormal cycle	6 / 16	37.5	3 / 20	15.0	2 / 19	10.5	5 / 24	20.8	5 / 18	27.8	9 / 22	40.9
irregular cycle	3 / 16	18.8	0 / 20	0.0	1 / 19	5.3	1 / 24	4.2	1 / 18	5.6	0 / 22	0.0
Persistent diestrus	2 / 16	12.5	2 / 20	10.0	1 / 19	5.3	0 / 24	0.0	2 / 18	11.1	3 / 22	13.6
Constant diestrus	1 / 16	6.3	1 / 20	5.0	0 / 19	0.0	4 / 24	16.7	2 / 18	11.1	6 / 22	27.3
Persistent estrus	0 / 16	0.0	0 / 20	0.0	0 / 19	0.0	0 / 24	0.0	0 / 18	0.0	0 / 22	0.0
Constant estrus	0 / 16	0.0	0 / 20	0.0	0 / 19	0.0	0 / 24	0.0	0 / 18	0.0	0 / 22	0.0
5 months of age												
Normal cycle	13 / 16	81.3	11 / 19	57.9	15 / 19	78.9	17 / 24	70.8	5 / 17	29.4	8 / 22	36.4
Abnormal cycle	3 / 16	18.8	8 / 19	42.1	4 / 19	21.1	7 / 24	29.2	12 / 17**	70.6	14 / 22**	63.6
irregular cycle	0 / 16	0.0	1 / 19	5.3	1 / 19	5.3	0 / 24	0.0	2 / 17	11.8	1 / 22	4.5
Persistent diestrus	2 / 16	12.5	5 / 19	26.3	2 / 19	10.5	1 / 24	4.2	6 / 17	35.3	5 / 22	22.7
Constant diestrus	0 / 16	0.0	1 / 19	5.3	1 / 19	5.3	6 / 24	25.0	4 / 17	23.5	6 / 22	27.3
Persistent estrus	1 / 16	6.3	1 / 19	5.3	0 / 19	0.0	0 / 24	0.0	0 / 17	0.0	2 / 22	9.1
Constant estrus	0 / 16	0.0	0 / 19	0.0	0 / 19	0.0	0 / 24	0.0	0 / 17	0.0	0 / 22	0.0
6 months of age												
Normal cycle	10 / 16	62.5	9 / 19	47.4	12 / 19	63.2	17 / 24	70.8	9 / 17	52.9	4 / 22	18.2
Abnormal cycle	6 / 16	37.5	10 / 19	52.6	7 / 19	36.8	7 / 24	29.2	8 / 17	47.1	18 / 22**	81.8
irregular cycle	1 / 16	6.3	0 / 19	0.0	1 / 19	5.3	0 / 24	0.0	1 / 17	5.9	1 / 22	4.5
Persistent diestrus	2 / 16	12.5	3 / 19	15.8	5 / 19	26.3	2 / 24	8.3	4 / 17	23.5	5 / 22	22.7
Constant diestrus	2 / 16	12.5	6 / 19	31.6	1 / 19	5.3	5 / 24	20.8	3 / 17	17.6	10 / 22	45.5
Persistent estrus	1 / 16	6.3	1 / 19	5.3	0 / 19	0.0	0 / 24	0.0	0 / 17	0.0	1 / 22	4.5
Constant estrus	0 / 16	0.0	0 / 19	0.0	0 / 19	0.0	0 / 24	0.0	0 / 17	0.0	1 / 22	4.5
7 months of age												
Normal cycle	12 / 16	75.0	6 / 19	31.6	10 / 19	52.6	11 / 24	45.8	5 / 17	29.4	2 / 22	9.1
Abnormal cycle	4 / 16	25.0	13 / 19*	68.4	9 / 19	47.4	13 / 24	54.2	12 / 17*	70.6	20 / 22**	90.9
irregular cycle	3 / 16	18.8	4 / 19	21.1	7 / 19	36.8	10 / 24	41.7	3 / 17	17.6	1 / 22	4.5
Persistent diestrus	0 / 16	0.0	1 / 19	5.3	0 / 19	0.0	0 / 24	0.0	1 / 17	5.9	2 / 22	9.1
Constant diestrus	0 / 16	0.0	0 / 19	0.0	0 / 19	0.0	0 / 24	0.0	1 / 17	5.9	7 / 22	31.8
Persistent estrus	0 / 16	0.0	7 / 19 #	36.8	2 / 19	10.5	2 / 24	8.3	7 / 17 #	41.2	8 / 22 ##	36.4
Constant estrus	1 / 16	6.3	1 / 19 #	5.3	0 / 19	0.0	1 / 24	4.2	0 / 17 #	0.0	2 / 22 ##	9.1

N, normal

Irreg. irregular estrus cycle (Unclassifiable)

PD, persistent diestrus (prolonged diestrus periods lasting 5-9 days)

CD, constant diestrus (prolonged diestrus periods lasting 10 days or more)

PE, persistent estrus (prolonged estrus periods lasting 3-7 days)

CE, constant estrus (prolonged estrus periods lasting 8 days or more)

*p<0.05, **p<0.01 (χ-square test)

#p<0.05, ##p<0.01, (χ-square test) ; Combined persistent estrus and constant estrus

Table 8-3 Estrus cycle, ovary weight and histopathological examinations

Category		Body weight	Ovary weight	
			Absolute mg	Relative mg/100g
Normal cycle	Mean	393.2	74.6	18.9
	SD	42.9	19.8	4.1
	n	49	49	49
Irregular estrus cyce	Mean	365.9	76.3	20.8
	SD	19.2	14.4	3.6
	n	5	5	5
Persistent estrus cycle constant estrus cycle persistent proestrus cycle	Mean	403.9	50.5 **	12.6 **
	SD	45.2	12.6	3.2
	n	51	51	51
Persistent diestrus cycle constant diestrus cycle	Mean	432.6	86.5	20.1
	SD	41.7	12.7	3.1
	n	12	12	12

***p<0.01 (T test)

Table 9-1 Absolute organ weights of male offspring at 10 weeks of age - group mean values

Exp.group (mg/kg/day)	Number of animals	Brain mg	Pituitary mg	Thyroid mg	Liver g	Kidney mg	Adrenal mg	Testis mg	Epididymis mg	Seminal vesicle mg	Ventral prostate mg	Body weight g
Vehicle Control	7	Mean S.D. 2007.9 71.3	13.6 1.6	17.7 4.8	17.7 2.6	3027.7 388.2	58.2 7.8	3453.2 250.6	917.3 62.2	1246.6 194.9	440.2 75.5	430.3 42.2
BPA 0.005	6	Mean S.D. 2014.1 66.4	13.0 1.6	17.4 2.8	15.5 1.9	2848.9 302.5	53.8 6.0	3310.1 284.5	892.1 88.5	1085.4 103.4	431.8 76.6	403.6 41.9
BPA 0.05	10	Mean S.D. 2007.8 89.8	13.5 1.3	18.3 2.9	16.9 2.2	2978.9 332.5	58.8 4.8	3158.0 * 169.4	862.4 57.2	1170.6 179.0	393.5 103.1	428.5 38.6
BPA 40	9	Mean S.D. 1962.6 71.2	12.9 1.1	18.2 2.6	16.2 1.0	2979.5 191.6	59.1 10.2	3349.9 185.7	902.7 84.3	1252.3 123.2	449.2 82.3	425.4 26.7
BPA 400	9	Mean S.D. 2004.5 70.2	12.7 1.3	16.0 1.8	16.2 1.9	2804.7 279.1	55.6 9.9	3267.2 267.5	913.9 105.0	1129.8 167.7	409.6 73.5	416.5 28.4
EE 0.05	9	Mean S.D. 1990.3 74.9	13.3 1.3	17.5 2.5	15.7 1.4	2703.5 225.4	53.3 10.0	3216.1 195.9	862.4 51.8	1153.5 187.8	414.6 67.5	396.7 26.8

* p<0.05 (Dunnett's test)

Table 9-2 Relative organ weights of male offspring at 10 weeks of age - group mean values

Exp-group (mg/kg/day)	Number of animals	Brain mg/100g	Pituitary mg/100g	Thyroid mg/100g	Liver g/100g	Kidney mg/100g	Adrenal mg/100g	Testis mg/100g	Epididymis mg/100g	Seminal vesicle mg/100g	Ventral prostate mg/100g	Body weight g
Vehicle Control	7	Mean	3.2	4.1	4.1	702.7	13.6	807.8	214.5	289.1	102.2	430.3
		S.D.	0.4	0.9	0.3	46.8	1.4	80.5	18.9	30.0	13.3	42.2
BPA 0.005	6	Mean	3.2	4.4	3.9	706.6	13.4	823.2	221.3	271.0	106.8	403.6
		S.D.	0.3	0.9	0.3	40.4	1.2	64.1	11.1	34.2	14.3	41.9
BPA 0.05	10	Mean	3.2	4.3	3.9	695.5	13.8	741.3	201.9	276.2	91.7	428.5
		S.D.	0.2	0.5	0.2	54.4	1.8	65.4	12.5	52.3	20.7	38.6
BPA 40	9	Mean	3.0	4.3	3.8 *	701.5	13.9	789.9	212.9	295.4	105.3	425.4
		S.D.	0.3	0.8	0.2	40.7	2.2	61.0	23.5	33.9	16.2	26.7
BPA 400	9	Mean	3.1	3.9	3.9	672.9	13.3	784.9	219.5	271.1	98.3	416.5
		S.D.	0.4	0.4	0.2	40.0	1.9	46.1	22.2	35.2	15.3	28.4
EE 0.05	9	Mean	3.4	4.5	4.0	681.7	13.5	812.1	218.0	292.1	104.5	396.7
		S.D.	0.3	0.8	0.2	40.9	2.5	48.1	16.7	53.4	16.1	26.8

* p<0.05 (Dunnett's test)

Table 9-3 Absolute organ weights of female offspring at 10 weeks of age - group mean values

Exp.group (mg/kg/day)	Number of animals	Brain mg	Pituitary mg	Thyroid mg	Liver g	Kidney mg	Adrenal mg	Uterus mg	Ovary mg	Body weight g
Vehicle Control	6	Mean S.D.	14.9 1.5	15.3 2.6	10.8 1.7	1975.9 176.0	66.1 4.2	423.5 59.4	91.2 12.9	286.1 29.3
BPA 0.005	6	Mean S.D.	15.5 1.9	16.0 2.8	10.4 1.1	1851.8 162.1	66.0 8.9	384.9 43.6	89.0 16.1	291.9 33.7
BPA 0.05	7	Mean S.D.	15.6 2.1	14.8 2.3	10.4 1.1	1957.8 221.9	76.8 9.6	407.1 44.8	87.1 10.8	293.5 29.9
BPA 40	8	Mean S.D.	14.8 1.9	14.8 1.9	10.9 1.5	1977.3 169.7	68.5 9.7	388.5 58.1	90.0 16.6	291.4 26.6
BPA 400	9	Mean S.D.	14.5 3.9	14.2 4.0	10.7 2.8	1899.3 506.9	69.8 18.4	368.6 102.9	101.9 28.8	295.3 76.1
EE 0.05	9	Mean S.D.	15.9 3.9	14.9 4.3	10.9 2.5	1942.6 463.0	69.9 16.9	355.0 96.8	90.8 27.5	289.9 68.8

Table 9-4 Relative organ weights of female offspring at 10 weeks of age - group mean values

Exp.group (mg/kg/day)	Number of animals	Brain mg/100g	Pituitary mg/100g	Thyroid mg/100g	Liver g/100g	Kidney mg/100g	Adrenal mg/100g	Uterus mg/100g	Ovary mg/100g	Body weight g
Vehicle Control	6	Mean S.D.	5.2 0.5	5.3 0.6	3.8 0.3	692.7 51.1	23.2 1.8	148.1 15.7	32.0 4.5	286.1 29.3
BPA 0.005	6	Mean S.D.	5.4 0.9	5.6 1.2	3.6 0.2	637.8 54.5	22.7 3.0	133.9 24.4	30.4 3.3	291.9 33.7
BPA 0.05	7	Mean S.D.	5.4 0.8	5.1 0.7	3.6 0.2	666.9 27.9	26.3 3.3	139.5 17.1	29.8 3.2	293.5 29.9
BPA 40	8	Mean S.D.	5.1 0.5	5.1 0.7	3.7 0.2	680.1 45.8	23.5 2.0	134.6 26.5	30.9 4.8	291.4 26.6
BPA 400	9	Mean S.D.	4.9 0.7	4.8 1.1	3.6 0.2	643.8 44.0	23.7 2.0	125.6 19.3	34.3 7.4	295.3 21.9
EE 0.05	9	Mean S.D.	5.5 0.9	5.1 1.3	3.8 0.2	669.9 31.3	24.1 2.2	122.2 23.5	31.3 5.1	289.9 22.2

Table 9-5 Absolute organ weights of male offspring at 7 months of age - group mean values

Exp.group (mg/kg/day)	Number of animals	Brain mg	Pituitary mg	Thyroid mg	Liver g	Kidney mg	Adrenal mg	Testis mg	Epididymis mg	Seminal vesicle mg	Ventral prostate mg	Body weight g
Vehicle Control	18	Mean S.D. 2297.3 82.3	15.9 1.6	26.1 4.0	23.5 3.6	4246.7 572.7	56.6 8.1	3934.4 297.1	1469.6 119.8	2344.7 310.2	705.9 154.2	777.5 76.2
BPA 0.005	27	Mean S.D. 2288.0 106.1	15.7 2.0	26.0 5.7	20.7 * 3.3	3995.8 511.5	55.6 6.0	3857.5 497.5	1424.6 193.1	2029.2 ** 284.8	626.7 219.6	716.7 * 81.0
BPA 0.05	29	Mean S.D. 2221.6 * 70.7	15.1 1.7	24.3 4.7	20.0 ** 3.2	3896.2 * 422.2	53.6 8.8	3710.4 310.4	1391.8 114.7	1981.5 ** 350.4	555.4 * 141.1	712.6 * 80.7
BPA 40	22	Mean S.D. 2224.0 * 75.1	16.2 2.2	22.6 3.9	21.6 3.5	4023.7 466.7	56.1 8.7	3873.3 240.2	1418.4 96.2	2123.2 206.6	715.6 160.0	720.0 * 73.1
BPA 400	17	Mean S.D. 2186.7 ** 103.8	14.9 1.1	22.0 * 2.6	19.5 ** 1.8	3651.5 ** 361.7	51.9 9.1	3690.3 209.9	1372.9 100.1	2098.5 322.2	642.0 157.2	662.1 ** 38.2
EE 0.05	22	Mean S.D. 2185.2 ** 84.9	14.5 * 1.6	23.5 4.7	20.8 * 3.7	3672.5 ** 375.7	54.2 5.4	3556.3 * 589.8	1301.0 ** 168.4	2008.3 ** 266.3	533.5 ** 150.5	682.1 ** 53.0

* p<0.05, **p<0.01 (Dunnett's test)