

Fig. 47

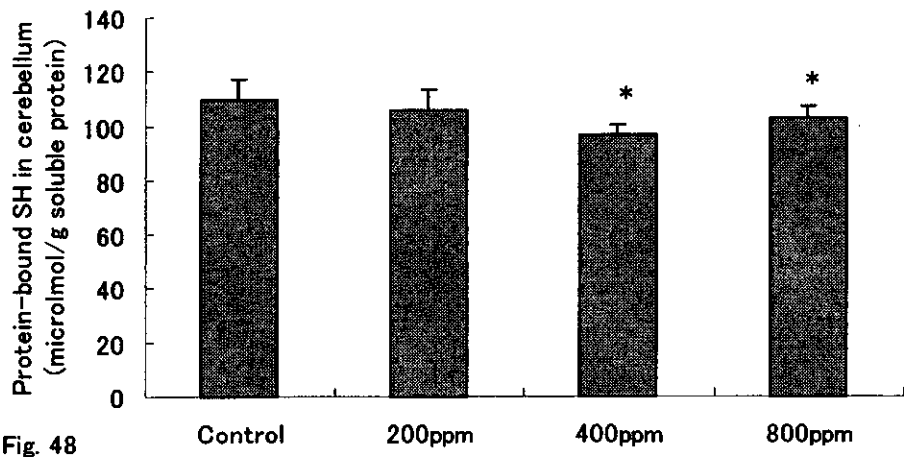


Fig. 48

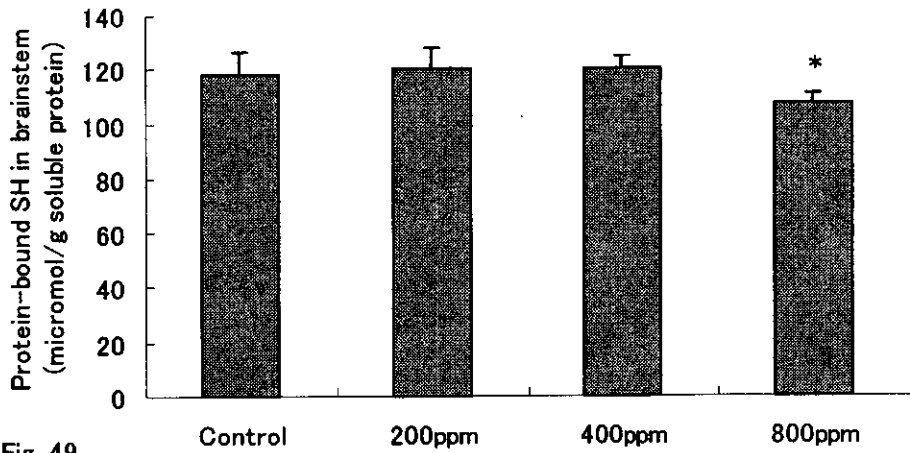


Fig. 49

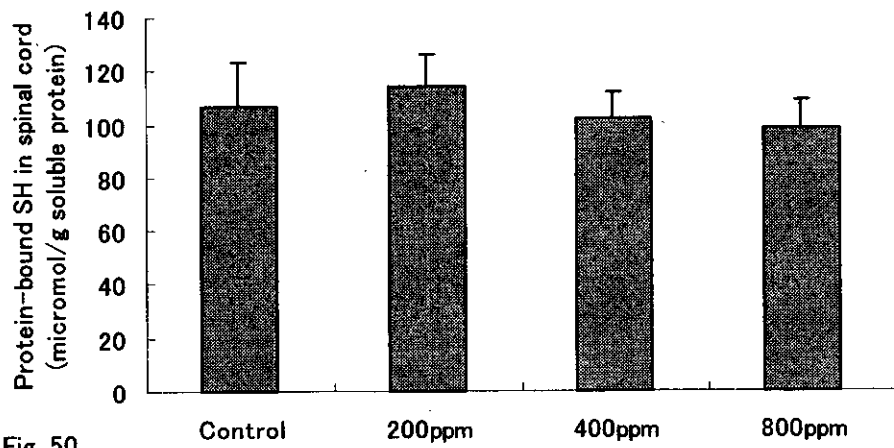


Fig. 50

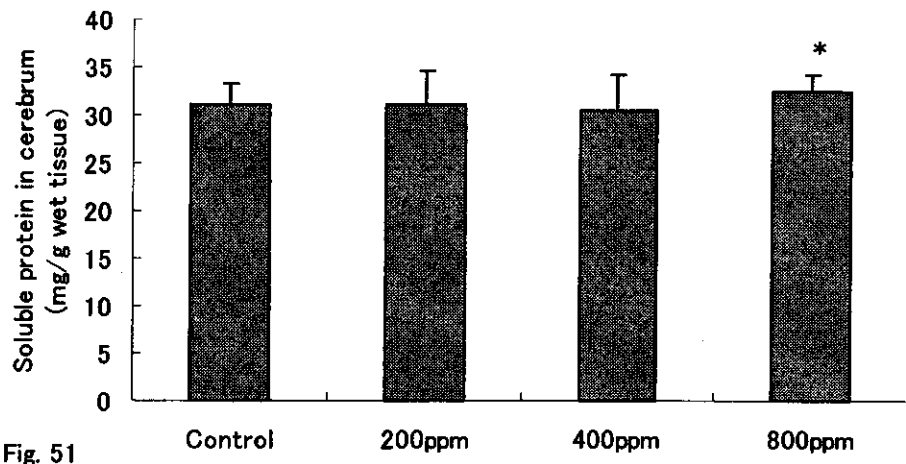


Fig. 51

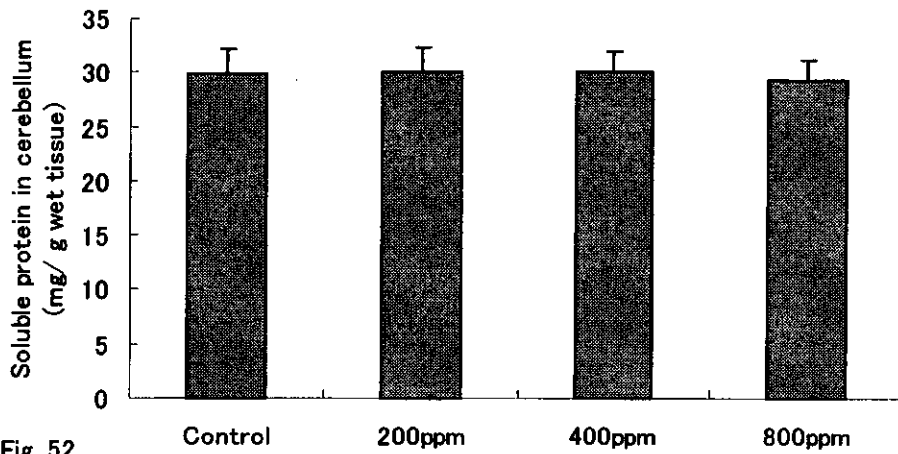


Fig. 52

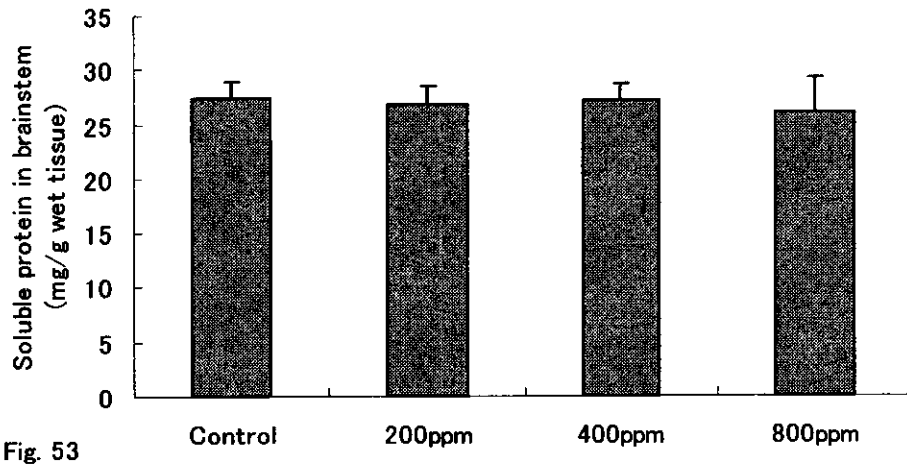


Fig. 53

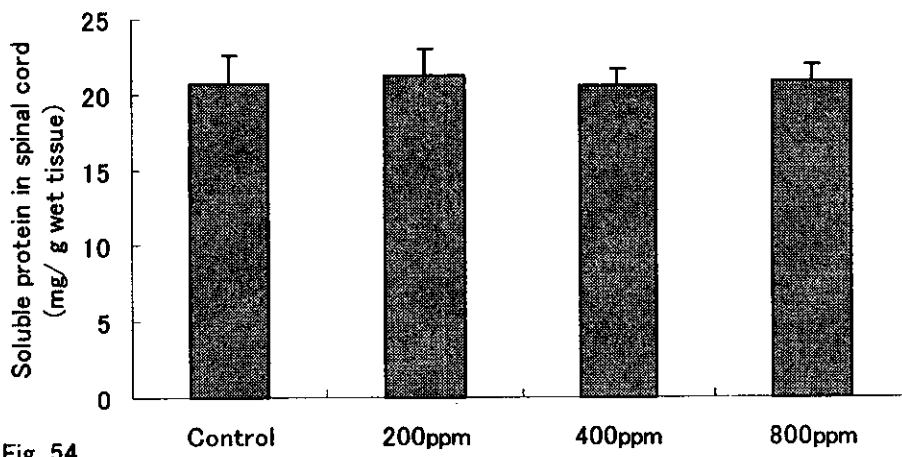


Fig. 54

Table 1

## 動物実験とヒト症例との比較

	動物実験	ヒト症例
末梢神経	末梢神経ミエリン変性 運動神経伝導速度低下 遠位潜時延長 ----- -----	下肢振動覚低下 ----- 遠位潜時延長 下痢、発汗 嚥下困難
中枢神経	延髄薄束核前末端神経変性 大脳重量低下、大脳皮質萎縮 神経特異蛋白減少(大脳皮質) 脳CK活性、アミノザイムCKB減少 小脳プルキンエ細胞変性性周期攪 乱成長卵胞、ろ胞卵胞減少	異常感覚、無感覚 記憶障害 頭痛  ふらつき、めまい 月経不順

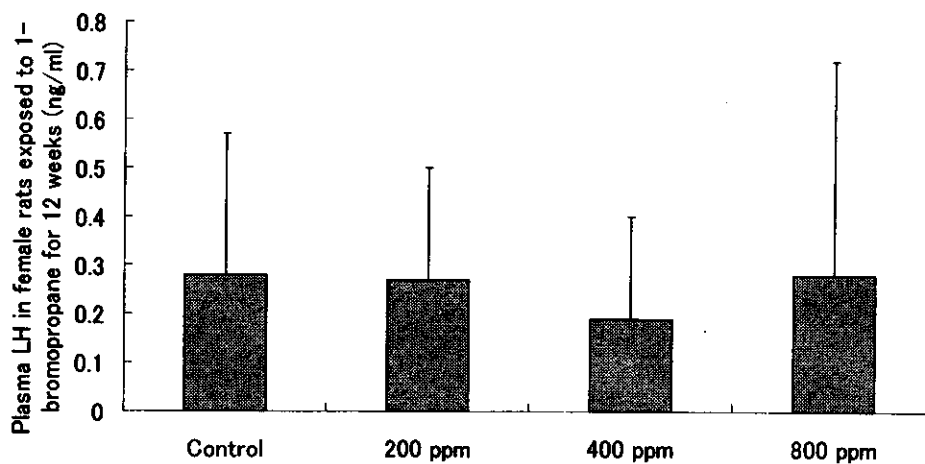


Fig. 55

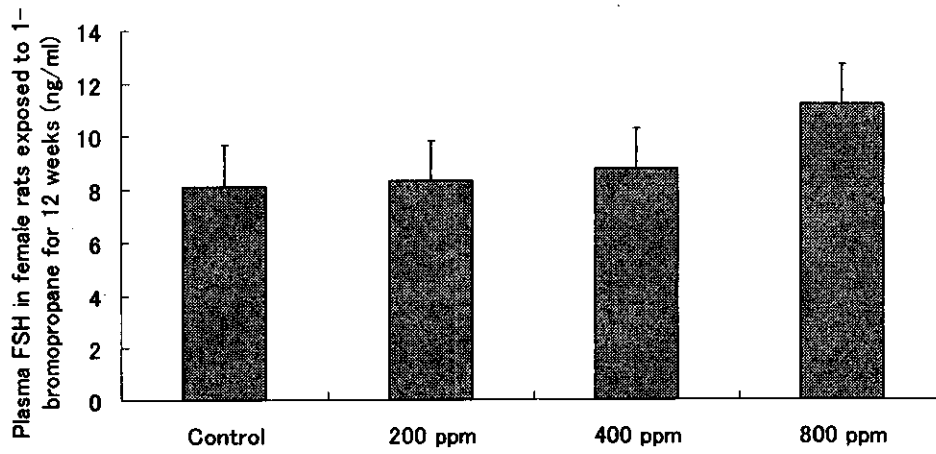


Fig 56

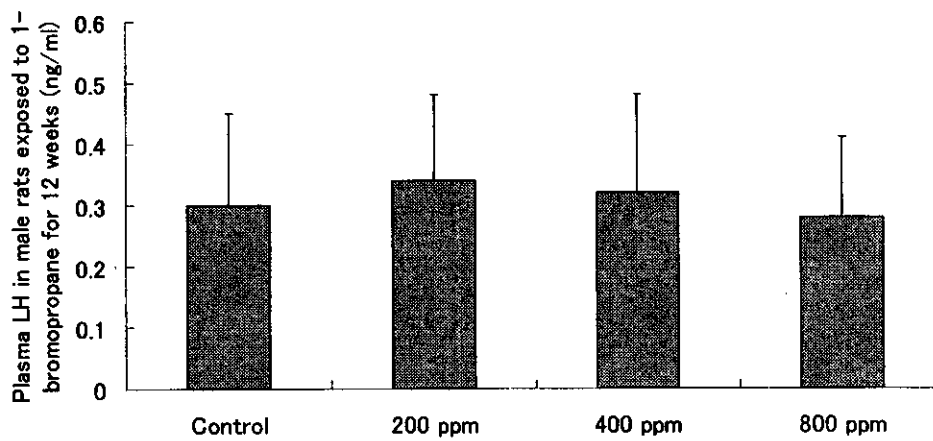


Fig 57

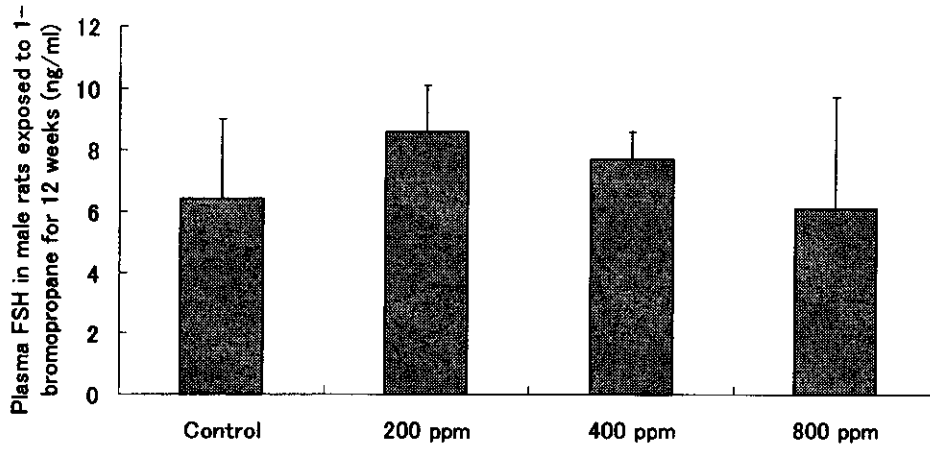


Fig. 58

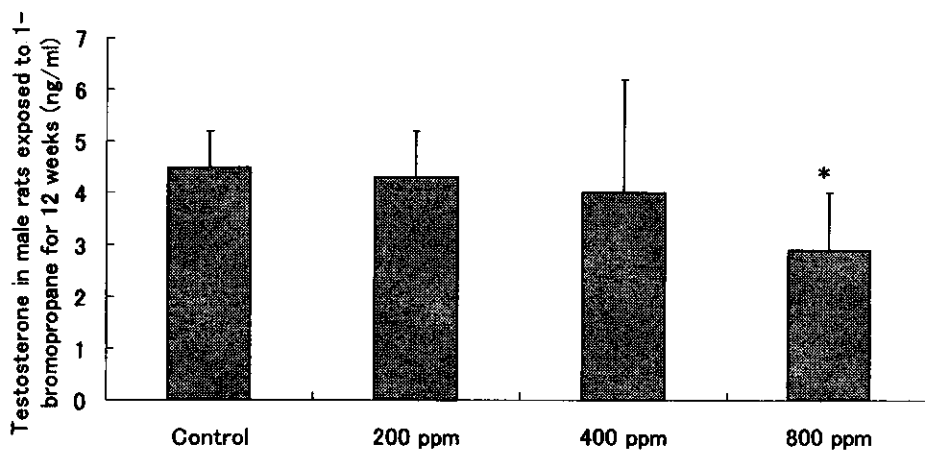


Fig. 59

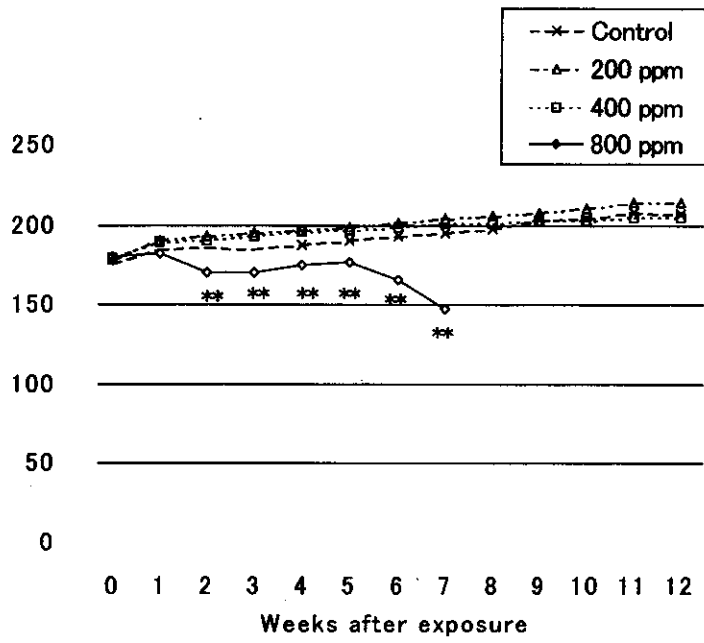


Fig. 60

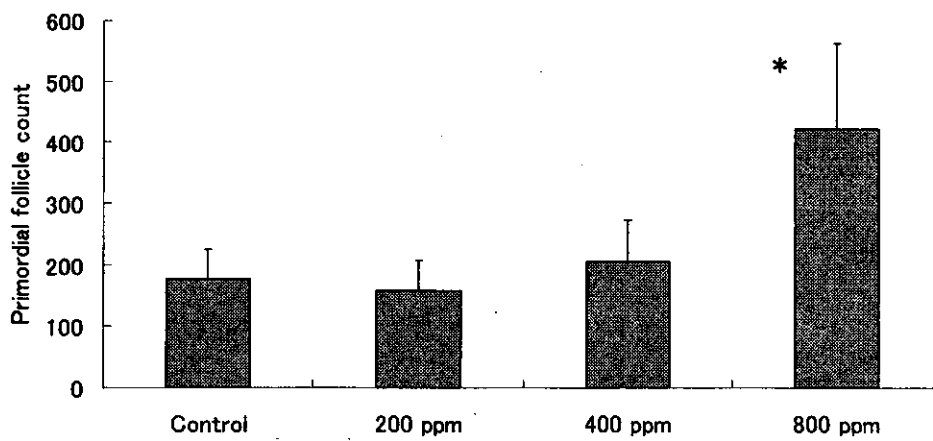


Fig. 61



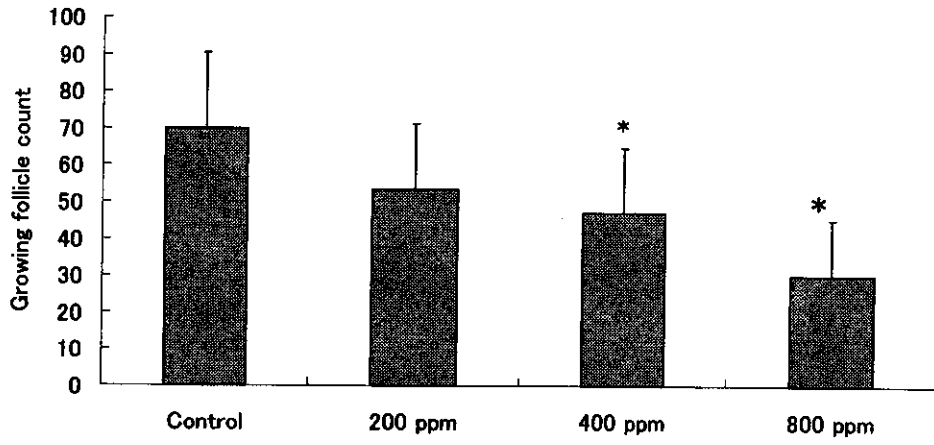


Fig. 62

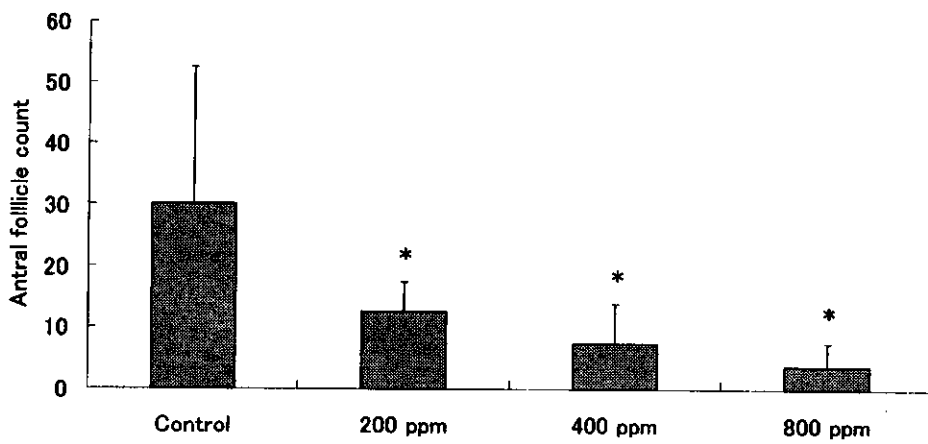


Fig. 63

TABLE II  
Changes in estrous cycle in rats exposed to 1-bromopropane by inhalation

	Before exposure		Duration of exposure (weeks)																	
			1-3			4-6			7-9			10-12								
	Reg	Irreg	No	p	Reg	Irreg	No	p	Reg	Irreg	No	p	Reg	Irreg	No	p				
Control (n=9)	9	0	0		9	0	0		9	0	0		9	0	0		9	0	0	
200 ppm (n=10)	10	0	0		9	1	0		10	0	0		10	0	0		10	0	0	
400 ppm (n=10)	10	0	0		10	0	0		9	0	1		7	3	0	**	4	5	1	**
800 ppm (n=10)	10	0	0		6	4	0	*	0	5	5	**								

Reg: Regular estrous cycles (3.0-5.0 cycles / 3 weeks), Irreg: Irregular estrous cycles (0.5-2.5 cycles / 3 weeks), No: No normal estrous cycles (0 cycle / 3 weeks). Rats of the 800 ppm group became seriously ill and were decapitated during the 8th week. Rats of the other groups were exposed to the agent for 12 weeks. The number of estrous cycles in each group was compared to the control in each pre-exposure or exposure period by Dunnett-type multiple comparison method following Kruskal-Wallis test. \*: p<0.05, \*\*: p<0.01.

Table III

Body and absolute organ weights at the end of experiment in rats exposed to 1-bromopropane

	Control (n=8)	200 ppm (n=9)	400 ppm (n=9)	† 800 ppm (n=9)
Ovary (R)	0.046±0.006	0.048±0.004	0.049±0.009	0.026±0.007
Ovary (L)	0.044±0.006	0.045±0.006	0.043±0.009	0.023±0.005
Ovary (R+L)	0.090±0.005	0.093±0.006	0.092±0.016	0.049±0.010
Uterus	0.462±0.039	0.489±0.044	0.433±0.058	0.170±0.017
Vagina	0.130±0.010	0.146±0.019	0.129±0.016	0.142±0.013
Thymus	0.159±0.013	0.139±0.026	0.144±0.018	0.075±0.021
Adrenal gland (R)	0.025±0.002	0.028±0.003	0.029±0.003*	0.027±0.004
Adrenal gland (L)	0.026±0.002	0.029±0.006	0.028±0.003	0.028±0.002
Adrenal gland (R+L)	0.051±0.004	0.057±0.008	0.056±0.005	0.054±0.005
Kidney (R)	0.731±0.045	0.813±0.045**	0.792±0.043*	0.780±0.035
Kidney (L)	0.742±0.039	0.832±0.046**	0.817±0.035**	0.788±0.059
Kidney (R+L)	1.473±0.076	1.646±0.081**	1.609±0.077**	1.569±0.091
Spleen	0.437±0.026	0.462±0.048	0.443±0.027	0.294±0.020
Liver	7.04±0.47	8.27±0.46**	9.20±0.41**	7.94±1.01
Brain	1.828±0.024	1.778±0.093	1.742±0.037**	1.609±0.028
Exposure duration	12 weeks	12 weeks	12 weeks	7 weeks
Body weight	207.3±6.0	214.7±7.9	205.2±7.7	147.1±8.2

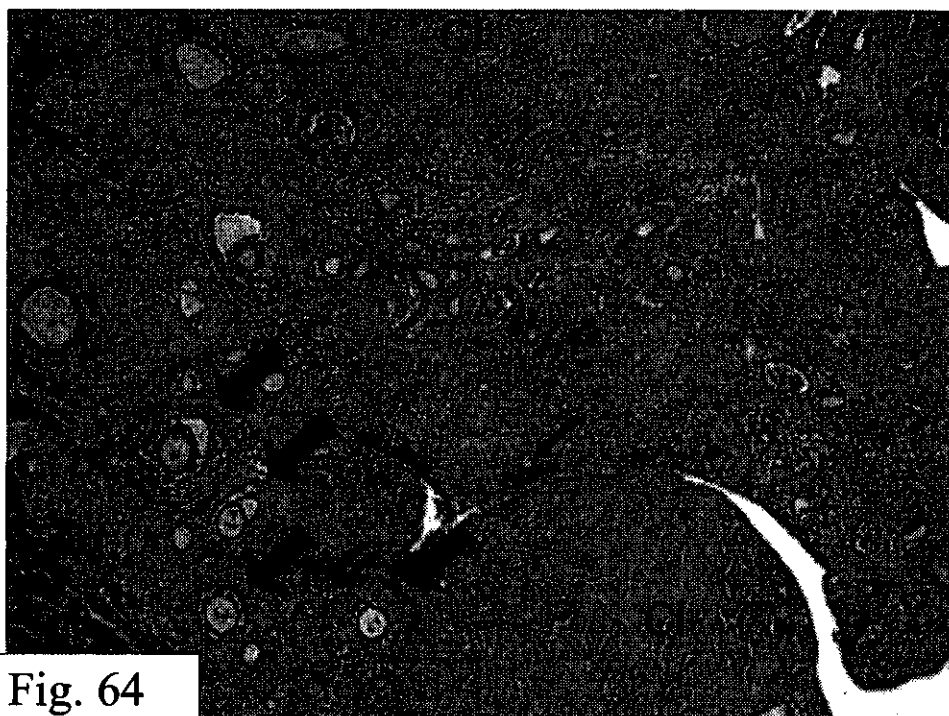
Body and absolute organ weights are expressed in grams. The rats in the 800-ppm group became seriously ill and were decapitated during the 8th week. Other groups were exposed for 12 weeks. † The rats in the 800-ppm group were excluded by analysis because there was not appropriate age-matched control group for comparison. Differences in organ weights between the exposed groups and control were analyzed by ANOVA followed by Dunnett's multiple comparison method. \*: p<0.05, \*\*: p<0.01.

Table IV

Relative organ weights at the end of experiment in rats exposed to 1-bromopropane

	Control (n=8)	200 ppm (n=9)	400 ppm (n=9)	† 800 ppm (n=9)
Ovary (R)	0.22±0.03	0.23±0.02	0.24±0.05	0.18±0.04
Ovary (L)	0.21±0.03	0.21±0.03	0.21±0.05	0.15±0.03
Ovary (R+L)	0.44±0.03	0.43±0.04	0.45±0.09	0.33±0.06
Uterus	2.23±0.19	2.23±0.20	2.11±0.27	1.16±0.11
Vagina	0.63±0.04	0.68±0.10	0.63±0.07	0.96±0.06
Thymus	0.77±0.07	0.65±0.12	0.70±0.09	0.51±0.13
Adrenal gland (R)	0.12±0.01	0.13±0.01	0.14±0.01	0.18±0.03
Adrenal gland (L)	0.12±0.01	0.14±0.03	0.14±0.01	0.19±0.02
Adrenal gland (R+L)	0.24±0.02	0.27±0.04	0.27±0.02	0.37±0.04
Kidney (R)	3.53±0.20	3.79±0.14 <sup>***</sup>	3.89±0.14 <sup>***</sup>	5.31±0.17
Kidney (L)	3.58±0.18	3.88±0.18 <sup>***</sup>	3.98±0.12 <sup>***</sup>	5.36±0.22
Kidney (R+L)	7.11±0.33	7.67±0.26 <sup>***</sup>	7.84±0.25 <sup>***</sup>	10.67±0.33
Spleen	2.11±0.10	2.15±0.21	2.16±0.13	2.00±0.08
Liver	33.9±1.6	38.5±1.4 <sup>***</sup>	44.8±1.4 <sup>***</sup>	53.8±4.3
Brain	8.83±0.31	8.29±0.48	8.50±0.38	10.97±0.52
Exposure duration	12 weeks	12 weeks	12 weeks	7 weeks

Relative organ weights are expressed in mg tissue weight/g body weight. The rats in the 800-ppm group became seriously ill and were decapitated during the 8th week. Other groups were exposed for 12 weeks. † The rats in the 800-ppm group were excluded by analysis because there was not appropriate age-matched control group for comparison. Differences in organ weights between the exposed groups and control were analyzed by ANOVA followed by Dunnett's multiple comparison method. \*: p<0.05, \*\*: p<0.01.



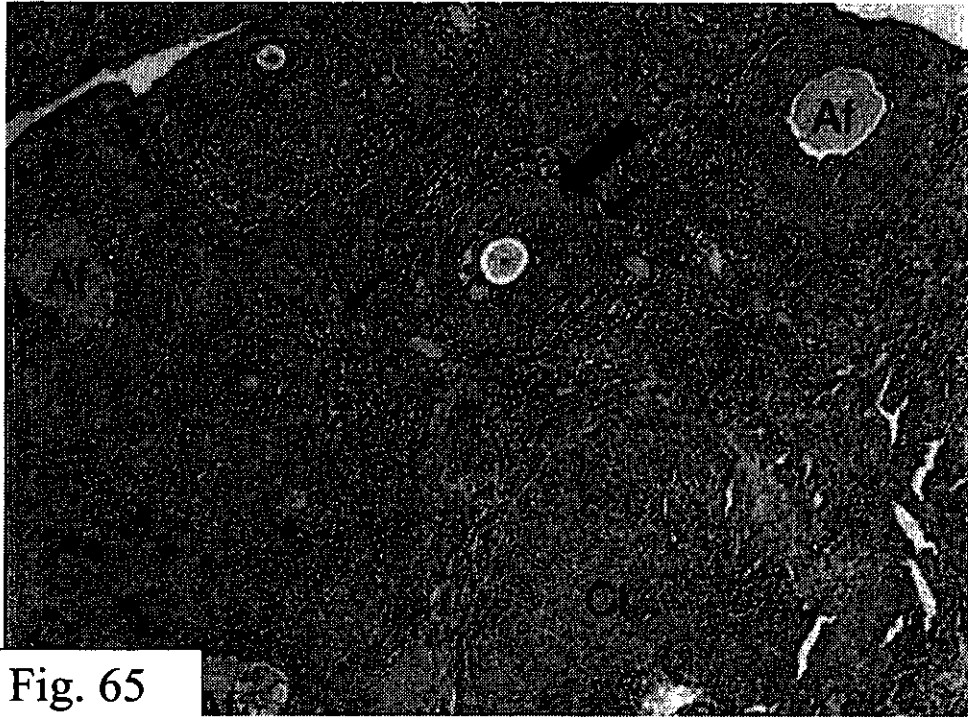


Fig. 65



Fig. 66

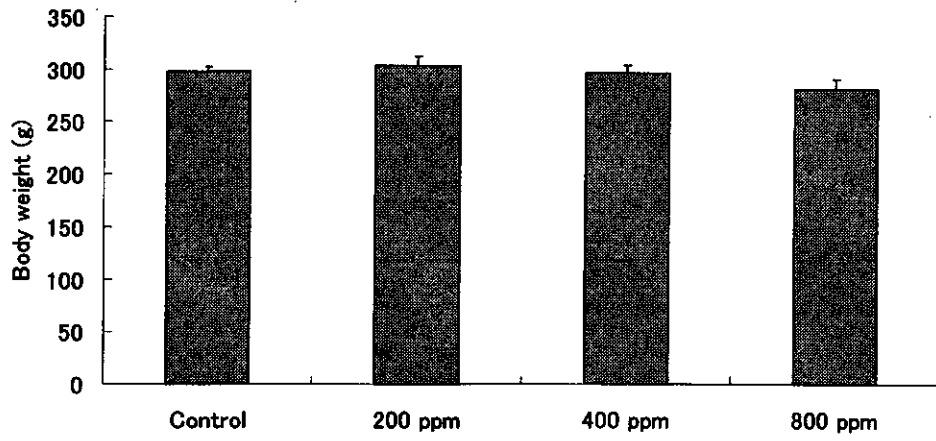


Fig. 67

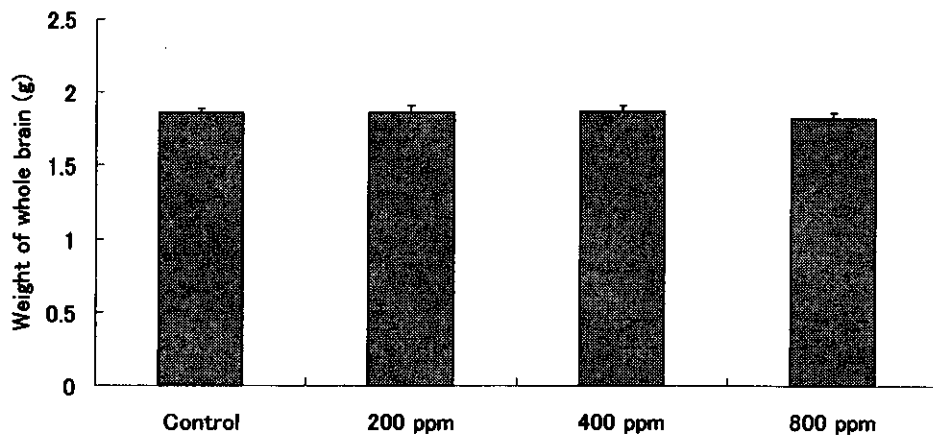


Fig. 68

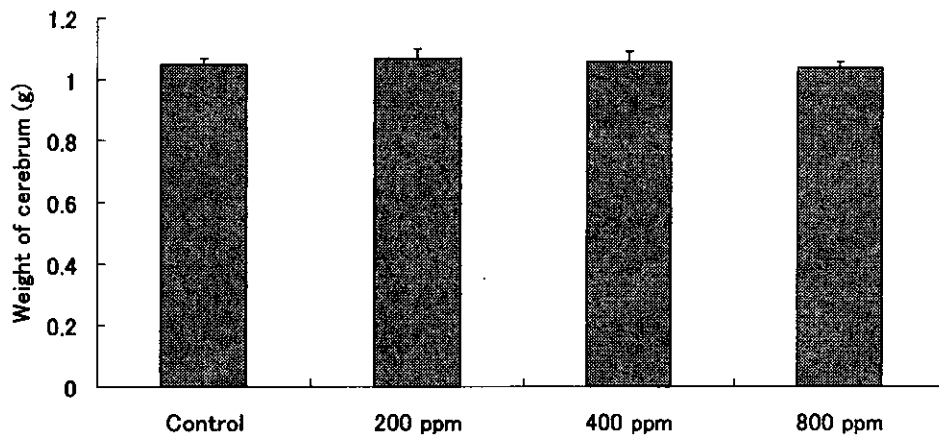


Fig. 69

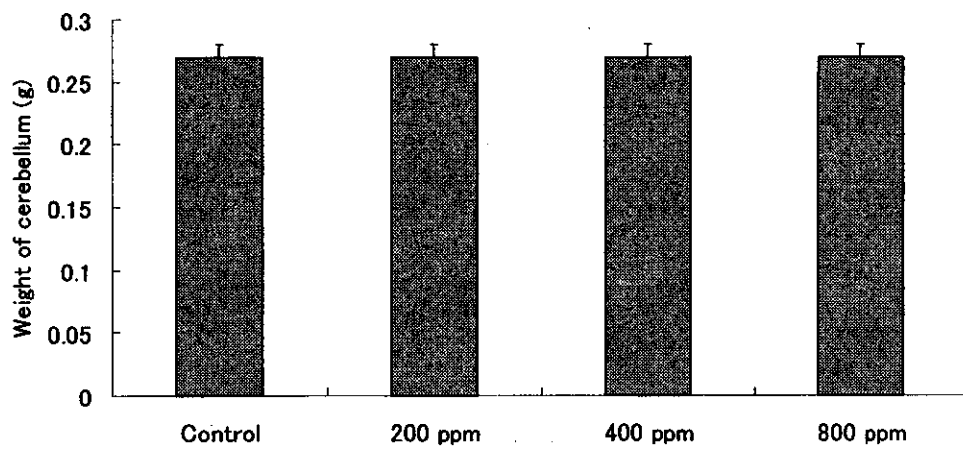


Fig. 70

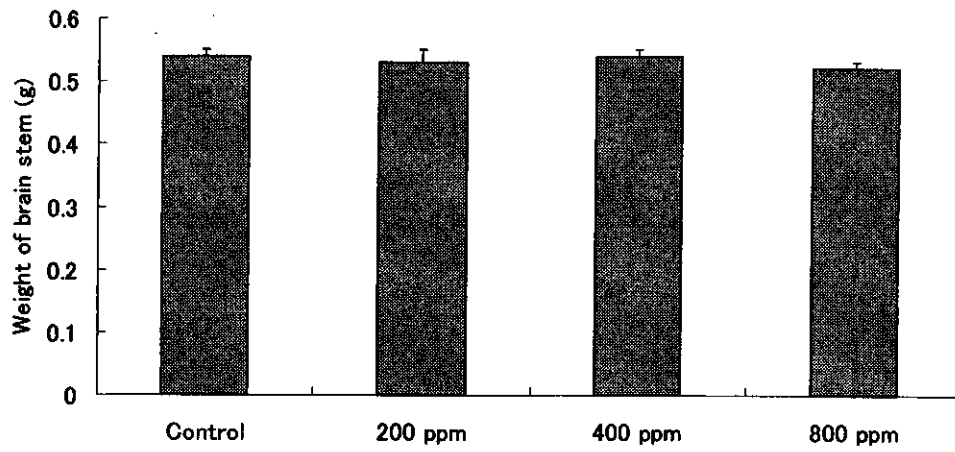


Fig. 71

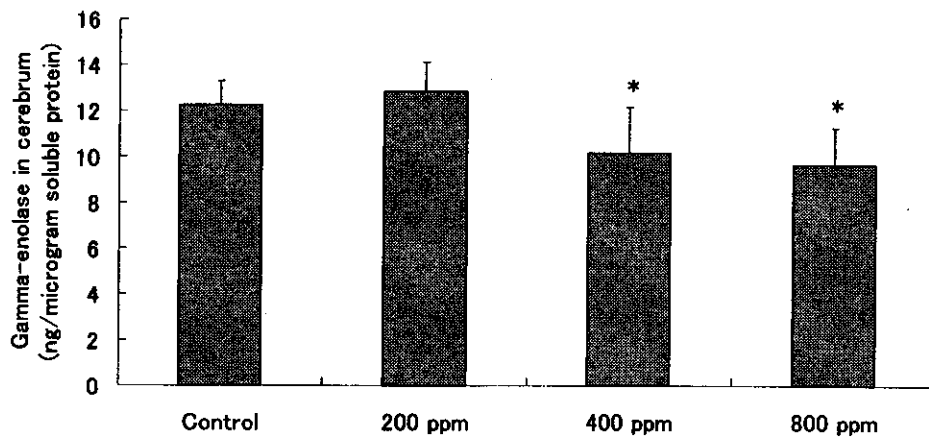


Fig. 72

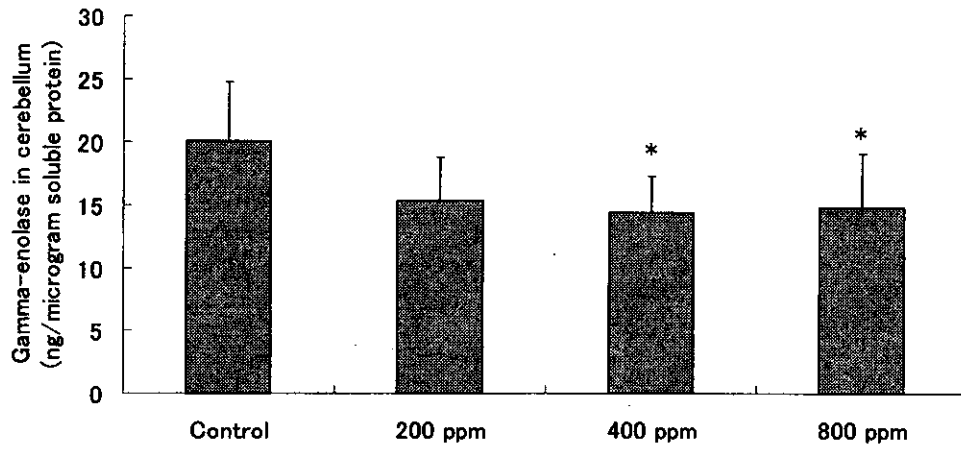


Fig. 73

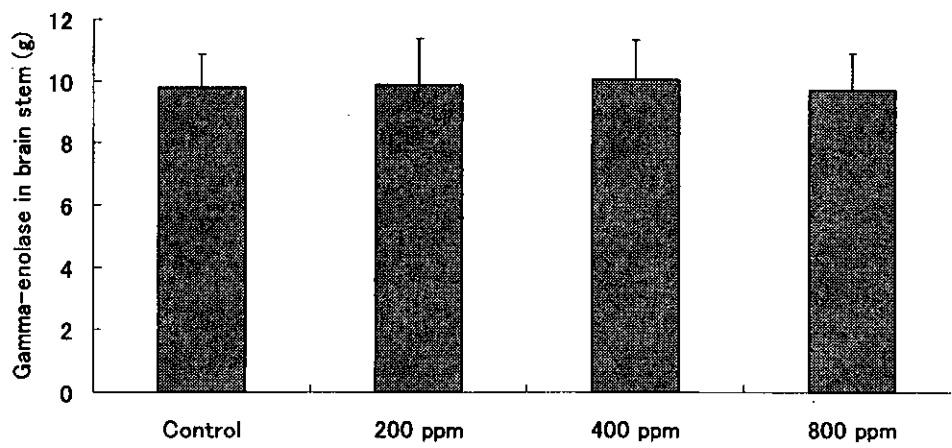


Fig. 74



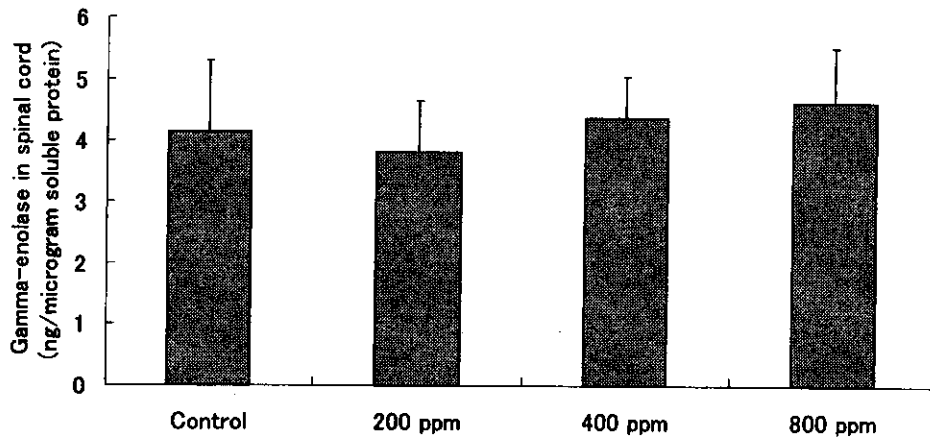


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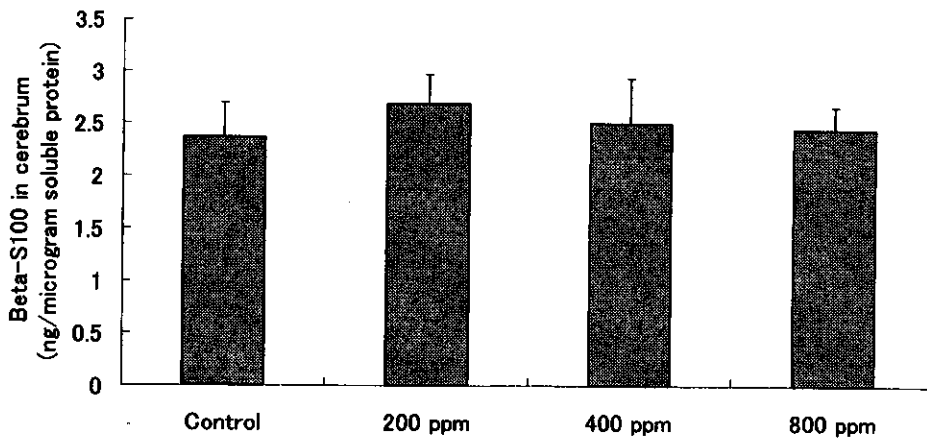


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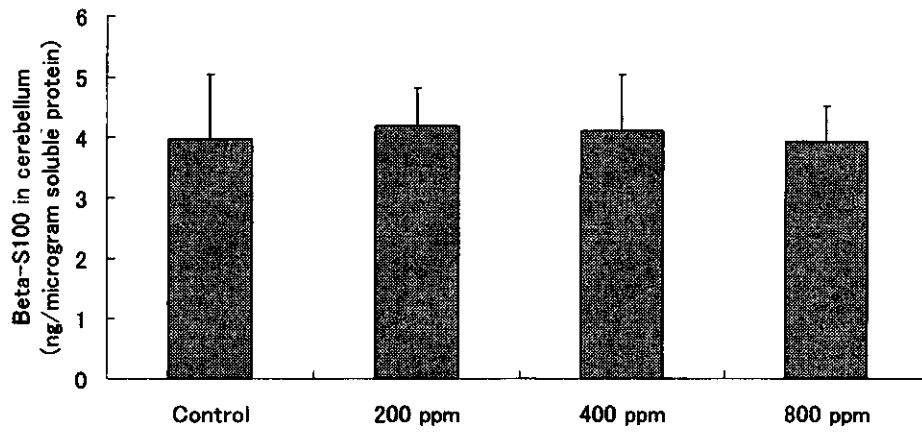


Fig. 77

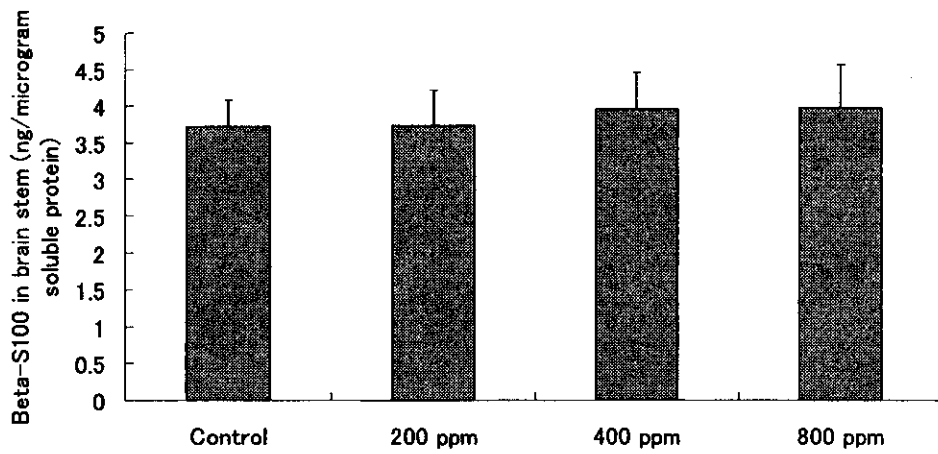


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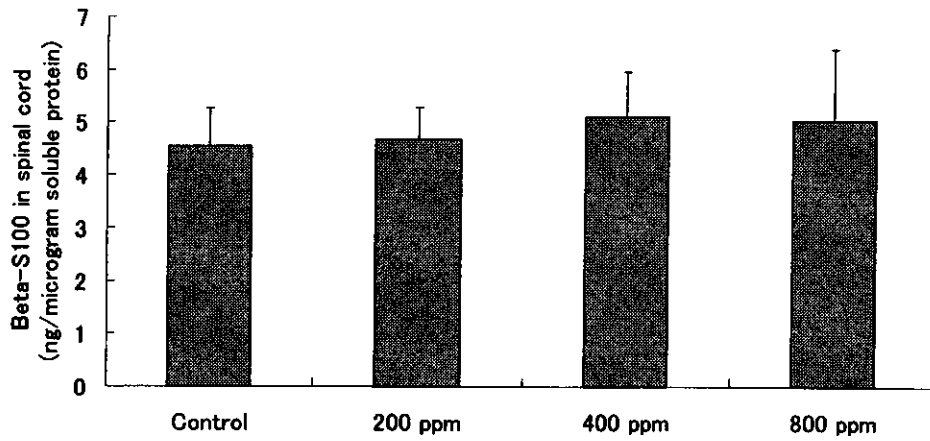


Fig. 79

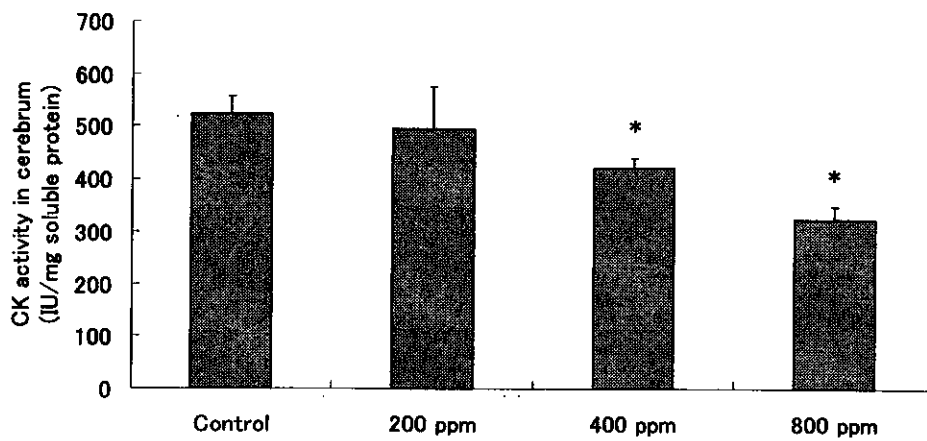


Fig. 80

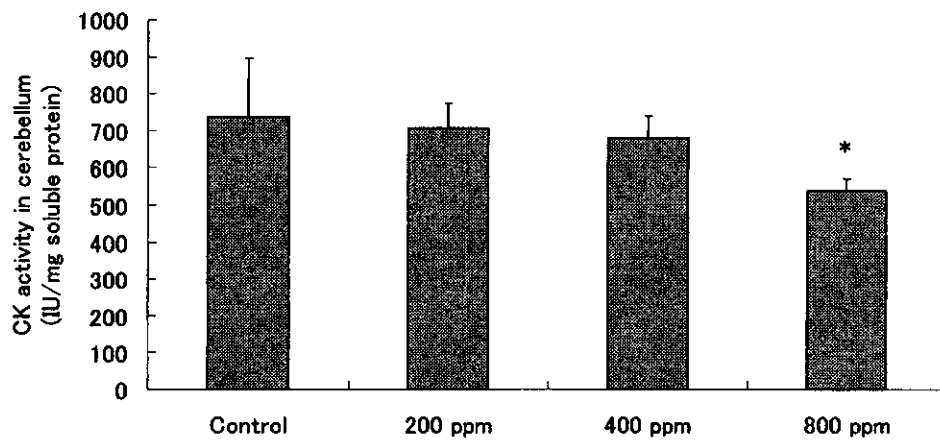


Fig. 81

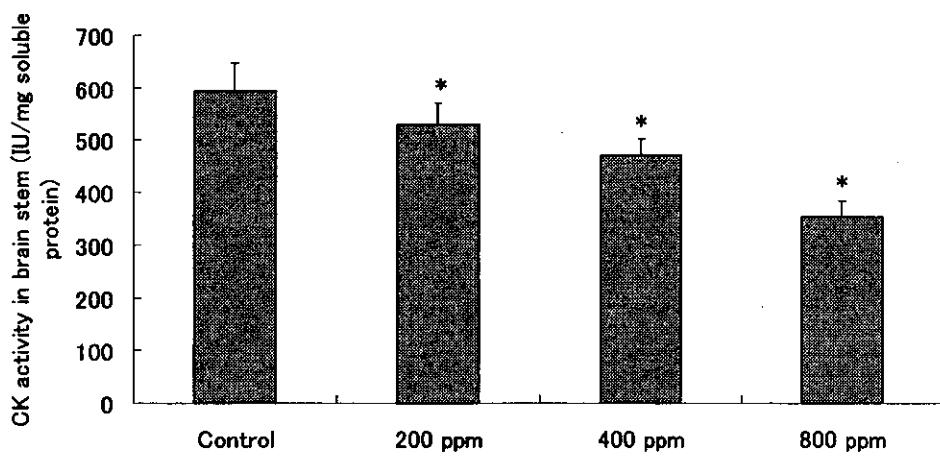


Fig. 82