



Figure S1. Follow up of body weight of B[a]P-exposed mice *via* oral administration at doses ranging from 0.02 to 200 mg/kg for 10 consecutive days. Results were expressed as mean +/- SEM of 10 mice per group.

Table S1. Spontaneous alternation performances of B[a]P-exposed mice *via* oral administration at doses ranging from 0.02 to 200 mg/kg for 10 consecutive days in the Y maze. Results were expressed as median (first column) and quartiles (in brackets).

MWM	Control	0.02 mg/kg	0.2 mg/kg	2 mg/kg	20 mg/kg	200 mg/kg
% of spontaneous alternation	65 (5-78)	60 (5-72)	66 (5-70)	67 (5-78)	62 (4-79)	62 (4-75)
Total of arm entries	50 (45-58)	52 (41-65)	49 (41-60)	49 (38-60)	49 (42-57)	50 (41-65)
Number of arms visited (min)	5 (5-6)	5 (4-7)	5 (4-6)	5 (4-6)	5 (4-6)	5 (4-7)
Number of arm entries (1st min)	9 (5-10)	8 (6-10)	8 (5-11)	8 (6-11)	7 (1-10)	9 (3-14)

Table S2. Performances of B[a]P-exposed mice *via* oral administration at doses ranging from 0.02 to 200 mg/kg for 10 consecutive days in the Morris water maze (MWM). Results were expressed as median (first column) and quartiles (in brackets) of 10 mice per group.

Treatment	Assay 1	Assay 2	Assay 3	Assay 4	Assay 5
Control	68 (27-92)	37 (14-42)	14 (11-16)	15 (7-17)	36 (19-49)
0.02 mg/kg	59 (11-135)	17 (10-39)	14 (8-17)	10 (8-38)	19 (14-67)
0.2 mg/kg	41 (28-86)	23 (17-26)	14 (10-30)	30 (5-94)	13 (9-64)
2 mg/kg	16 (9-27)	11 (9-22)	23 (9-29)	10 (8-18)	19 (9-31)
20 mg/kg	18 (10-59)	16 (6-22)	21 (7-67)	8 (5-10)	6 (4-7)
200 mg/kg	20 (12-25)	11 (7-23)	17 (6-41)	20 (12-27)	19 (9-55)