

Supplementary material for

Use of a highly sensitive recombinant hepatoma cell method to determine dioxin concentrations in samples of fish and crab from a hotspot area

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1. Dose–response curve for induction of luciferase activity by TCDD

Fig. 1 Dose–response curve for induction of luciferase activity by TCDD. H-4-II-E

cells were seeded on 96-well plates at a density of 10^4 cells/well and cultured overnight. The cells were infected with AdEasy-4XDRE-TATA-Luc virus for 16 h and then incubated with TCDD at the indicated concentrations for 24 h.

2. Dioxin levels in fish and crab samples by HRGC/HRMS (pg-TEQ/g w.w.)

Table 1 Dioxin levels in fish and crab samples obtained in southwestern Taiwan as

determined by the Ad-DR bioassay (pg-BEQ/g w.w.) and HRGC/HRMS (pg-TEQ/g w.w.)

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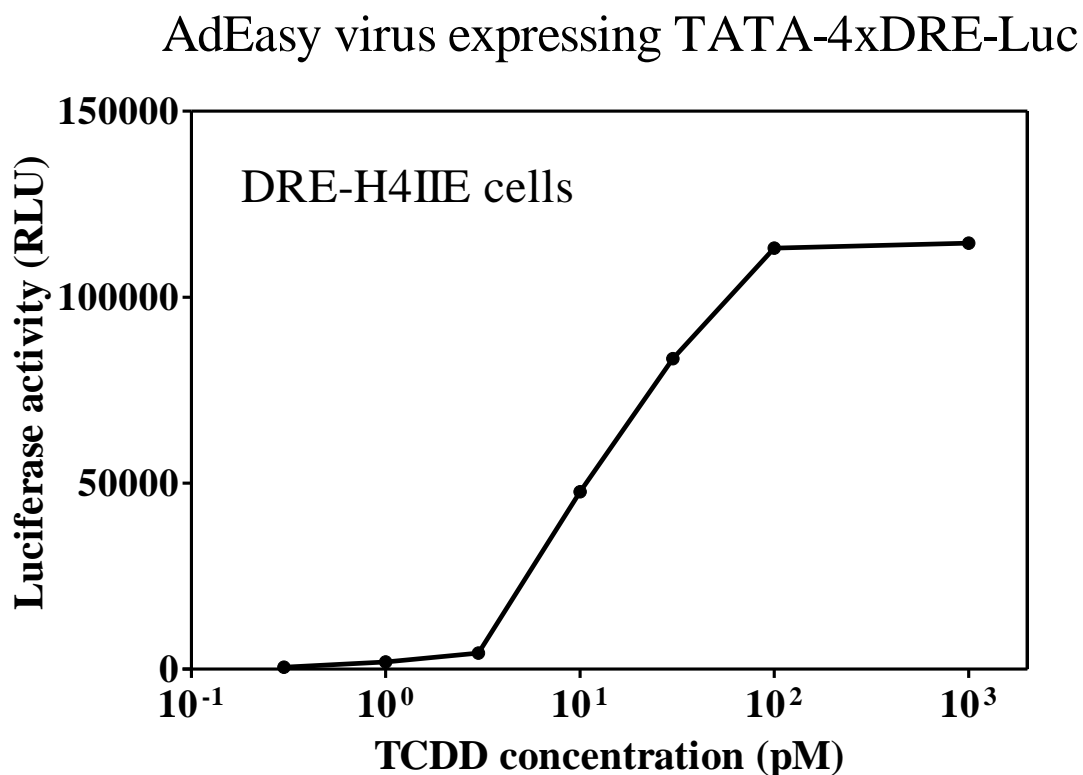


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Species (Location)	N	Mean by Ad-DR bioassay (pg-BEQ/g w.w.)	Mean by HRGC/HRMS (pg-TEQ/g w.w.)
<u>Whole fish</u>			
Flathead 1 (LR) ^a	3	11.9	0.854
Grey Mullet 1 (LR)	3	8.25	0.891
Grey Mullet 2 (LR)	3	6.02	0.280
Milk Fish 1 (LR)	3	18.3	0.435
Milk Fish 2 (CR) ^b	3	3.79	0.484
Perth Herring 1 (LR)	3	17.0	1.810
Tarpon 1 (LR)	3	18.7	0.471
Yellow Fin Sea Bream 1 (LR)	3	3.65	0.459
Perth Herring 2 (AP)	3	684	137
<u>Fish muscles</u>			
Milk Fish 3 (LR)	3	2.80	0.060
Perth Herring 3 (LR)	3	5.08	0.341
Perth Herring 4 (AP) ^c	3	769	104
Perth Herring 5 (LR)	3	15.5	0.702
Tarpon 2 (LR)	3	2.53	0.052
Tilapia 1 (CR)	3	2.25	0.347
Tilapia 2 (CR)	3	1.80	0.287
Tilapia 3 (CR)	3	1.98	0.183
<u>Fish viscera</u>			
Tilapia 4 (LR)	3	283	25.2
Tilapia 5 (CR)	3	237	14.6
Tilapia 6 (AP)	3	855	156
<u>Crab muscles</u>			
Brachyura 1 (LR)	3	3.84	0.104
Brachyura 2 (AP)	3	246	39.8
Mud Crab 1 (CR)	3	1.90	0.234

^a LR : Luerhmen River, ^b CR : Chufakang River, ^c AP : the pond near an abandoned plant