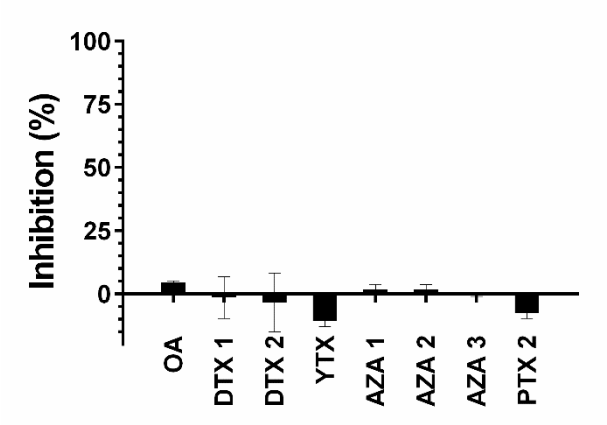
Supplementary Information

Supplementary Table 1. Regulated lipophilic toxin composition and nAChR-inhibition binding of shellfish provided by Agri-food and Biosciences Institute

Sample	OA Group (µg/kg)			YTX Group (µg/kg)				AZA Group (µg/kg)		STX	DA	Inh, binding (%)
	OA	DTX1	DTX2	YTX	h-YTX	45-OH YTX	45-OH-h-YTX	AZA1	AZA2			mean ± SEM
AFBI-01	169,3	71,0	185,2	133,0		126,6		>2000	>5000			93,0 ± 1,8
AFBI-02	59,2	9,1	19,3	18,5		14,9						89,2 ± 1,7
AFBI-03	1361,8	1047,8		14,4								68,3 ± 5,0
AFBI-04	90,1	22,1	31,3			31,0						99,5 ± 0,1
AFBI-05	18,4			298,8	5606	259,1	1717					99,1 ±0,2
AFBI-06	28,3	12,4	38,0	18,1		19,1						70,5 ± 4,0
AFBI-07	163,8	16,7	265,0	22,0		14,1						24,5 ±2,9
AFBI-08	20,3			39,6		19,1		7.9	11.1			98,5 ± 0,1
AFBI-09												39,0 ± 2,6
AFBI-10												81,7 ±1,3
AFBI-11												37,6 ±2,2
AFBI-12												38,5 ± 3,7
AFBI-13										+		29,8 ±1,9
AFBI-14											+	35,9 ± 3,2

Abbreviations : AFBI: Agri-food and Biosciences Institute; OA: okadaic acid; DTX: dinophysistoxin ; YTX: yessotoxin; h-YTX: homo-yessotoxin ; 45-OH YTX: 45-hydroxy-yessotoxin ; 45-OH h-YTX: 45-hydroxy homo-yessotoxin ; AZA: azaspiracid ; STX : saxitoxin; DA: domoic acid. Toxin quantification was performed by LC/MS. Inhibition binding was performed by microplate-receptor binding assay. Data are mean values ± SEM of sextuplicate assays of at least two independent experiments.

SUPPLEMENTARY FIGURE 3



Supplementary Figure 1. Effect of regulated lipophilic marine neurotoxins on the performance of microplate receptor-binding assay. Inhibition of biotin-α-BgTx binding to *Torpedo*-nicotinic acetylcholine receptors in the presence of okadaic acid (OA), dinophysistoxins (DTX1 and DTX2), yessotoxin (YTX), azaspiracids (AZA1, AZA2 and AZA3) and palytoxin 2 (PTX2). Each toxin was tested at a concentration of 10 µM. Each data plot represents the mean value ± SEM of triplicate experiments.