

**Supplementary Table 11. Brainstem gene expression in rats fed the control, ALA and DHA diet for 15 weeks.**

<b>Dietary Group</b>	<b>Control</b>	<b>ALA</b>	<b>DHA</b>
b-actin	1 ± 0.21	1.11 ± 0.27	1.10 ± 0.35
15 LOX	1 ± 0.49 <sup>ab</sup>	0.91 ± 0.59 <sup>a</sup>	1.68 ± 0.88 <sup>b</sup>
BDNF	1 ± 0.38	0.72 ± 0.28	1.19 ± 0.72
DR D2	1 ± 0.32	0.96 ± 0.20	0.88 ± 0.39
EGFR	1 ± 0.24	1.05 ± 0.23	1.14 ± 0.63
HO1	1 ± 0.16	1.01 ± 0.19	0.99 ± 0.21
sPLA2	1 ± 0.71	0.72 ± 0.67	1.10 ± 0.77
cPLA2	1 ± 0.21	0.98 ± 0.19	6.22 ± 16.96
iPLA2	1 ± 0.24	0.89 ± 0.20	1.10 ± 0.38
PPAR <sub>g</sub>	1 ± 0.43	0.91 ± 0.36	1.11 ± 0.60
PGES3	1 ± 0.19	1.14 ± 0.38	1.10 ± 0.27
COX 2	1 ± 0.31	0.87 ± 0.30	3.34 ± 6.43
RAR <sub>a</sub>	1 ± 0.21	1.00 ± 0.38	1.52 ± 0.96
RXR <sub>a</sub>	1 ± 0.18	0.99 ± 0.16	1.02 ± 0.22
RXR <sub>b</sub>	1 ± 0.26	1.15 ± 0.19	1.29 ± 0.44
VMAT2	1 ± 0.35	1.34 ± 0.73	9.94 ± 27.63
SNC <sub>a</sub>	1 ± 0.23 <sup>ab</sup>	0.95 ± 0.18 <sup>a</sup>	2.25 ± 3.24 <sup>b</sup>
TH	1 ± 0.34	1.24 ± 0.64	0.98 ± 0.76
TIA1	1 ± 0.22 <sup>ab</sup>	0.86 ± 0.30 <sup>a</sup>	1.61 ± 1.34 <sup>b</sup>
TNF <sub>a</sub> R1 <sub>a</sub>	1 ± 0.24	1.30 ± 0.63	1.21 ± 0.44
TTR	1 ± 2.01	0.93 ± 1.42	0.46 ± 0.72
UCP2	1 ± 0.19	1.05 ± 0.30	1.08 ± 0.30

Data are expressed as mean RQ ± SD. Different letters signify the means are significantly different (p<0.05) measured by One-way ANOVA followed by Tukey's test for multiple comparisons or Kruskal-Wallis test followed by Dunn's multiple comparison test (if variances were significantly different).