

**Supplementary Table 12. Hippocampus gene expression in rats fed the control, ALA and DHA diet for 15 weeks.**

| Dietary Group     | Control  | ALA          | DHA         |
|-------------------|----------|--------------|-------------|
| B-actin           | 1 ± 0.16 | 1.13 ± 0.15  | 1.12 ± 0.22 |
| 15 LOX            | 1 ± 0.34 | 0.74 ± 0.45  | 0.96 ± 0.67 |
| BDNF              | 1 ± 0.18 | 1.03 ± 0.22  | 1.13 ± 0.16 |
| DR D2             | 1 ± 0.41 | 1.27 ± 1.18  | 0.95 ± 0.52 |
| EGFR              | 1 ± 0.09 | 1.10 ± 0.19  | 1.04 ± 0.22 |
| HO1               | 1 ± 0.13 | 1.01 ± 0.23  | 1.03 ± 0.24 |
| sPLA2             | 1 ± 0.38 | 1.08 ± 0.61  | 0.93 ± 0.50 |
| cPLA2             | 1 ± 0.36 | 1.10 ± 0.24  | 0.98 ± 0.23 |
| iPLA2             | 1 ± 0.10 | 1.02 ± 0.15  | 1.05 ± 0.18 |
| PPAR $\gamma$     | 1 ± 0.73 | 0.47 ± 0.33  | 0.47 ± 0.22 |
| PGES3             | 1 ± 0.20 | 1.00 ± 0.19  | 1.11 ± 0.22 |
| COX 2             | 1 ± 0.34 | 1.15 ± 0.25  | 1.12 ± 0.25 |
| RAR a             | 1 ± 0.33 | 0.96 ± 0.27  | 0.97 ± 0.19 |
| RXR a             | 1 ± 0.17 | 1.08 ± 0.19  | 1.10 ± 0.14 |
| RXR b             | 1 ± 0.15 | 0.97 ± 0.22  | 1.07 ± 0.17 |
| VMAT 2            | 1 ± 1.43 | 0.84 ± 0.70  | 1.26 ± 1.73 |
| SNCa              | 1 ± 0.21 | 1.10 ± 0.21  | 1.19 ± 0.18 |
| TH                | 1 ± 0.32 | 1.15 ± 0.70  | 1.01 ± 0.41 |
| TIA1              | 1 ± 0.15 | 1.09 ± 0.24  | 1.08 ± 0.25 |
| TNF $\alpha$ R 1a | 1 ± 0.20 | 1.14 ± 0.22  | 0.99 ± 0.26 |
| TTR               | 1 ± 1.91 | 6.67 ± 10.18 | 2.40 ± 2.88 |
| UCP2              | 1 ± 0.21 | 1.26 ± 0.29  | 1.07 ± 0.34 |

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).